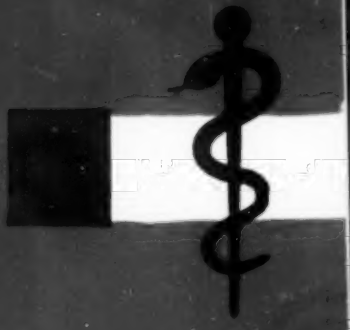
Medical TIMES

THE JOURNAL OF GENERAL PRACTICE



VOL. 82 DECEMBER 1953 NO. 12

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sizes now available: 2 cc., 5 cc., and 10 cc. — LUER-LOK® or Metal Luer tips.

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extends the scope of penicillin therapy

Remanden **gives better plasma penicillin levels—both peak-wise and duration-wise.** Levels are comparable to those obtained with intramuscular penicillin,[1] superior to those of other oral penicillin preparations.[2]

Remanden **enhances and prolongs the action of penicillin.** "Increases penicillemia by 2 to 10 times . . . infections ordinarily regarded as untreatable with penicillin have been successfully managed."[3]

Remanden **is the oral penicillin of choice.** May be used alone in many common infections, or in fulminating infections as an adjunct to parenteral penicillin.

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Remanden **is simple to administer—pleasant to take.** In Tablets or pleasant-tasting Suspension. Assures flexibility of dosage.

Remanden **supplements and augments initial intramuscular penicillin.** An initial "loading" dose of injected penicillin is followed by 2 Tablets of REMANDEN or 2 tsp. of Suspension of REMANDEN every 6-8 hours.

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NEW *Suspension* REMANDEN-100. (In 60 cc. bottles.) One tsp. equals one REMANDEN-100 tablet. *In 60 cc. bottles.*

SHARP & DOHME

Philadelphia 1, Pa.
DIVISION OF MERCK & CO., INC.

References: 1. Antibiotics & Chemotherapy 2:55, 1952. 2. Scientific Exhibit, Norristown State Hospital. Data to be published. 3. A.M.A. Exhibit, June 1951. 4. Am. J. Physiol. 166:639 (Sept.) 1953.

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Features

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Cortisone vs. Salicylate in Rheumatoid Arthritis

Latest clinical report proves cortisone no better than aspirin in the treatment of rheumatoid arthritis.

On May 29th, 1954, the Joint Committee of the Medical Research Council and Nuffield Foundation published a most significant finding on arthritis therapy—that "for practical purposes" there appears to be *"surprisingly little to choose between cortisone and aspirin."*[1]

"Sixty-one patients in the early stages of rheumatoid arthritis... have been allocated at random to treatment with one or other agent (cortisone 30 cases, aspirin 31 cases)...

"Observations made one week, eight weeks, thirteen weeks, and approximately one year after the start of treatment reveal that the two groups have run a closely parallel course in nearly all the recorded characteristics—namely, joint tenderness, range of movement in the wrist, strength of grip, tests of dexterity of hand and foot, and clinical judgments of the activity of the disease and of the patient's functional capacity."[1]

These findings spotlight an earlier report that "aspirin in large doses has definite beneficial results closely akin to those received from ACTH."[2]

High gastric intolerance to aspirin noted among arthritics—a problem easily met by the use of BUFFERIN.

In this latest study, the side-effects recorded for both groups "were equal in the early months of treatment but *became less in the aspirin group as time passed.*"[1]

Of clinical significance, however, is the high percentage of gastric intolerance to straight aspirin found among the arthritic patients—*42% as against 3 to 10% variously reported for the general population.*[3, 4]

Earlier investigations reveal the disadvantages of using sodium bicarbonate with aspirin—namely, the lowering of blood salicylate levels and the possible retention of the sodium ion.[2]

BUFFERIN *offers an answer to this problem. Unlike straight aspirin,* BUFFERIN *is well tolerated, even when given in large doses.*[4]

BUFFERIN contains no sodium. It combines aspirin with two antacid and buffering agents which protect the gastric mucosa against irritation from salicylates—at the same time providing faster absorption of salicylates into the blood stream.

REFERENCES: 1. Brit. M. J. 1:1223 (May 29) 1954. 2. M. Times 81:41 (Jan.) 1953. 3. J. Am. Pharm. Assoc., Sc. Ed. 39:21, 1950. 4. Ind. Med. 20:4:0 (Oct.) 1951.

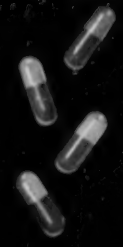
CONTENTS

visceral eutonic

DACTIL

PLAIN AND WITH PHENOBARBITAL

relieves **pain⇄spasm** usually in ten minutes



DACTIL relieves gastroduodenal or biliary pain so quickly that you can usually see it work right in your office.

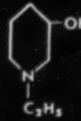
DACTIL capsules act at the site of visceral pain—relieve pain ⇄ spasm within minutes and control spasm within two days. Unusually well tolerated, DACTIL does not interfere with gastrointestinal or biliary secretions, normal tonus or motility.

TWO FORMS *Q I D*

DACTIL with Phenobarbital in bottles of 50 capsules. There are 50 mg. of DACTIL and 16 mg. of phenobarbital (warning: may be habit-forming) in each capsule.

DACTIL (plain) in bottles of 50 capsules. There are 50 mg. of DACTIL in each capsule.

DACTIL, first of the Lakeside piperidol derivatives, is the *only* brand of N-ethyl-3-piperidyl diphenylacetate HCl.



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CONTENTS

Departments

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with des or desPLEX

TWO DEPENDABLE PRODUCTS FOR LIFE *in* THREATENED ABORTION, HABITUAL ABORTION AND PREMATURE LABOR

des, the only micronized, triple crystallized (Grant Process) Stilbestrol (U.S.P.) Tablets—used in the treatment of pregnant women, with a history of one, two or more abortions—***averaged 96% normal live babies delivered***[1,2,3].

After extensive clinical experience with des, Karnaky[1], Gitman and Koplowitz[2] and Ross[3] as well as countless other clinicians wholeheartedly endorse the sound therapeutic necessity for the use of des in threatened abortion, habitual abortion and premature labor.

In a most recent publication, Karnaky has demonstrated that des, in massive doses (275 milligrams daily) provides optimum therapeutic results with maximum safety.

des—25 milligram tablets—highly micronized, triple crystallized (Grant Process) Stilbestrol (U.S.P.)—dissolve within a few seconds and are uniformly absorbed into the blood stream. Available in containers of 30 and 100 tablets.

new desPLEX—vitaminized, micronized Stilbestrol (U.S.P.). Border-line deficiency of B complex, especially Folic Acid, may sometimes prevent maximum utilization of estrogens. Histories of such cases indicate that the woman had difficulty in metabolizing endogenous or ingested estrogens. Not unusually, mild to severe nausea and vomiting is symptomatic. For additional support, when indicated, prescribe desPLEX, micronized Stilbestrol (U.S.P.), fortified with vitamin C plus B complex, including Folic Acid and B_{12}.

Karnaky[4] and Javert[5] agree that C and B complex vitamins and Folic Acid are necessary for the normal physiological metabolism of estrogens. Jailer[6] further substantiates that a border-line deficiency of Folic Acid may result in premature separation of the placenta. *That is why desPLEX is the product of choice.*

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For further information, write:

Medical Director

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1. Karnaky, K. J., Amer. J. Obst. & Gyn. 53:312, 1947
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Medical TIMES

THE JOURNAL OF GENERAL PRACTICE

Incorporating the Long Island Medical Journal and Western Medical Times

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Two rauwolfia preparations with different indications

RAUDIXIN Squibb Rauwolfia
in hypertension

Raudixin lowers blood pressure moderately, gradually, safely. Raudixin contains *all* the rauwolfia alkaloids; some of them contribute to the hypotensive effect, but not to the sedative effect. For this reason, Raudixin usually lowers blood pressure without excessive sedation.

50 and 100 mg. tablets / Bottles of 100 and 1000

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for sedation

Rau-sed is recommended whenever mild sedation is desired. As the effect comes on gradually, Rau-sed is not to be used as a single dose sedative-hypnotic; however, patients on maintenance doses usually sleep well. Rau-sed does not *put* them to sleep—it *allows* them to sleep. Rau-sed is not recommended in hypertension because adequate hypotensive doses may cause excessive sedation.

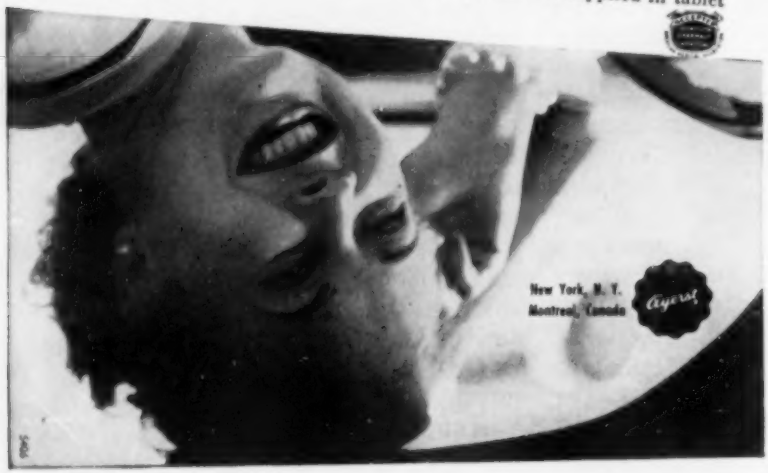
0.1 and 0.25 mg. tablets / Bottles of 100 and 1000

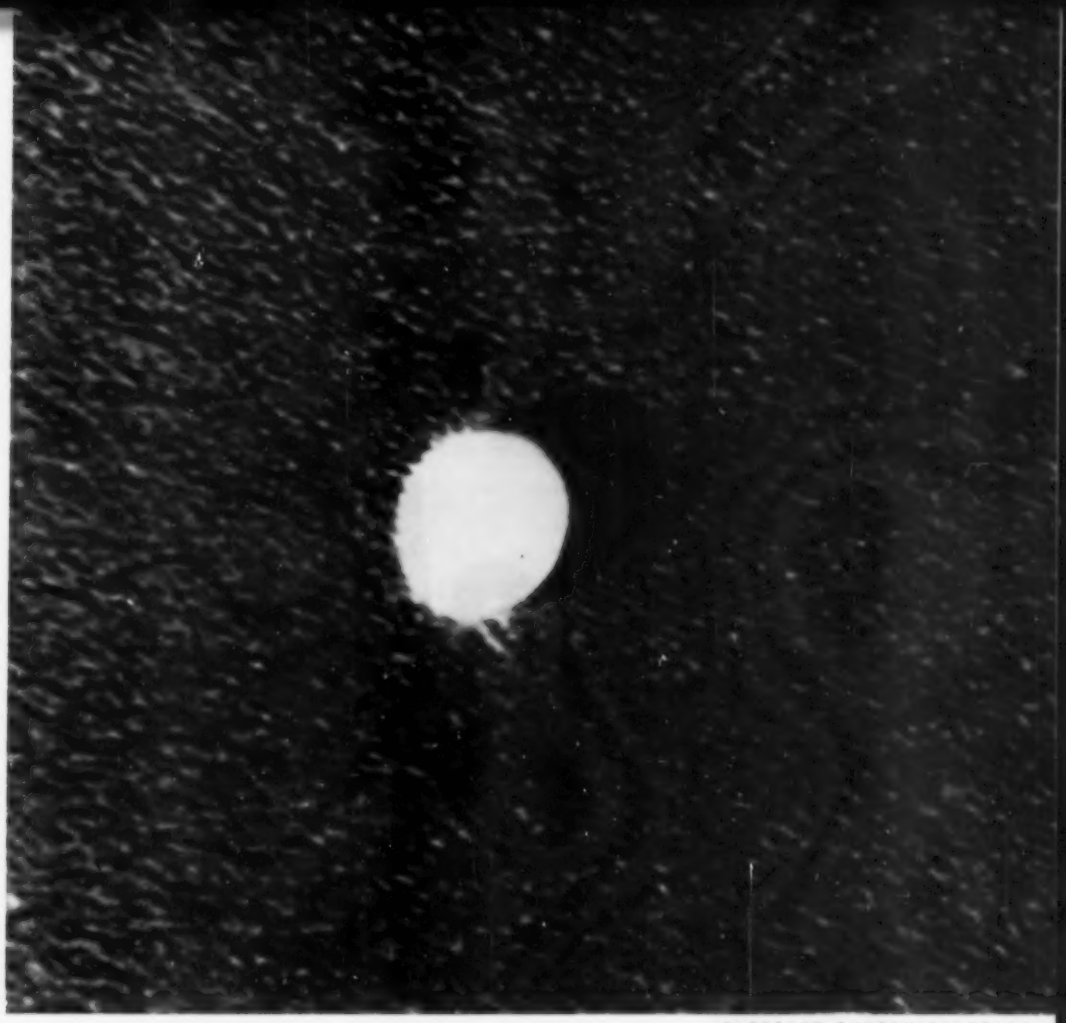
0.5 mg. tablets / Bottles of 50 and 500

SQUIBB A NAME YOU CAN TRUST

BOARD OF ASSOCIATE EDITORS

For every patient who presents such obvious menopausal symptoms as **hot flushes,** there will be another with symptoms equally distressing but not so clearly defined; **arthralgia** as well as insomnia, headache, easy fatigability, are good examples. Frequently these symptoms are due to declining ovarian function but are not so recognized because they may occur long before, or even years after, menstruation ceases. In such cases, the patient should have the **benefit** of estrogen therapy. **"Premarin"** (complete natural equine estrogen-complex) not only produces prompt symptomatic relief but also imparts a gratifying and distinctive **"sense of well-being."** Has no odor . . . imparts no odor. "Premarin"® estrogenic substances (water-soluble), also known as conjugated estrogens (equine) is supplied in tablet and liquid form.





ELECTRON PHOTOMICROGRAPH

Staphylococcus aureus 35,000 X

Staphylococcus aureus (Micrococcus pyogenes var. aureus) is a Gram positive organism commonly involved in a great variety of pathologic conditions, including pyoderma • abscesses • empyema • otitis • sinusitis • septicemia bronchopneumonia • bronchiectasis • tracheobronchitis • and food poisoning.

It is another of the more than 30 organisms susceptible to

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Available on prescription only.

Bottles of 100, 1000.

Dosage: One or two capsules, ½ to 1 hour before each meal.

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Each REVICAPS capsule contains:

d-Amphetamine Sulfate	5 mg.	Folic Acid	0.34 mg.	Fluorine (CaF_2)	0.10 mg.
Vitamin A	1670 U.S.P. U.	Vitamin B_{12}	0.34 microgram	Copper (CuO)	1 mg.
Vitamin D	167 U.S.P. U.	Ascorbic Acid (C)	20 mg.	Potassium (K_2SO_4)	5 mg.
Thiamine HCl (B_1)	1 mg.	Methylcellulose	200 mg.	Manganese (MnO_2)	1 mg.
Riboflavin (B_2)	1 mg.	Iron ($FeSO_4$ exsiccated)	3.34 mg.	Zinc (ZnO)	0.50 mg.
Niacinamide	20 mg.	Calcium ($CaHIO_4$)	140 mg.	Manganese (MgO)	1 mg.
Calcium Pantothenate	0.34 mg.	Phosphorus ($CaHPO_4$)	108 mg.	Boron ($Na_2B_4O_7$)	0.10 mg.
Pyridoxine HCl (B_6)	0.34 mg.	Iodine (KI)	0.50 mg.		

*Reg. U. S. Pat. Off. Lederle Brand d-Amphetamine—Vitamins Minerals

Off the Record . . .

True Stories From Our Readers

Each incident described has been contributed by one of our readers. Contributions describing actual and unusual happenings in your practice are welcome. For obvious reasons only your initials will be published. An imported German apothecary jar will be sent in appreciation for each accepted contribution.

Frank Discussion

I had a humorous experience recently when a young, personable, very well-dressed woman consulted me because of a minor pelvic disorder. After the examination, which proved to be essentially negative, she volunteered the information that she was a member of the "oldest profession." In the course of our discussion in which she was quite frank, I asked her out of curiosity how she happened to get into the business.

She replied with a giggle, "Oh, I guess I was just lucky."

M. C. R., M.D.
Watertown, South Dakota

That's for Sure

The doctor was asked by the mother of a young girl to examine her daughter to see what was causing her stomach to swell.

After a thorough examination, the doctor revealed to the patient that she was going to have a baby.

The young girl, being un-married, denied strenuously any misbehavior, and stated that she could not be pregnant.

After much argument, the Mother turned to her daughter and said, "Shut yo' mouth, girl; if Dr. H. says yo' is gonna have a baby, yo' is gonna have a baby!"

P. S.—I delivered the baby.

V. L. H., M.D.
Clearwater, Fla.

Opening One's Big Mouth

When next I came to the waiting room door, I noted that both the man's and the woman's face were quite red! I beckoned the man (whose turn it was) to come in. As soon as the man was in the safety of my examining room, he let out a noisy sigh, as if of relief. When I asked him what was up, he explained as follows:

"Well, Doctor, I was reading our local newspaper, and I saw where Rev.

—Concluded on page 21a

adrenocortical hormone therapy can transform virtual helplessness into active ambulation

in rheumatoid arthritis

Cortril tablets

brand of hydrocortisone

when dosage is adjusted to patient's minimum need, Cortril therapy is as safe as therapy with any modern dramatic agent

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*brand of oxytetracycline and hydrocortisone

—Concluded from page 17a

Jones was leaving town for another church at the end of the week. I had heard how he was practically tossed out and thought that everyone knew it, so I says to the lady sitting across from me, 'I see where they are finally getting rid of old Jones,' and laughed."

"Says she, with a look that froze me in the middle of that laugh, 'Yes, I know. I'm Mrs. Jones!' "

D. E. F., M.D.
South Miami, Fla.

Lost: "Face" and Patient

As a patient of mine (a Chinese Nationalist Officer) was leaving the office, he started to relate an incident in which I had participated, and most certainly without thinking I said, "I didn't stand a Chinaman's chance." The patient returned, quite friendly, *a year later!*

C. A. L., M.D.
Washington, D. C.

Eyewitness?

My patient was a man of about fifty-five. His considerably younger wife came into my office with him and remained during the taking of the history. Gallbladder disease seemed to be a possibility, and questioning along such lines followed:

"What is the color of your stool" I asked.

The patient looked thoughtful, but said nothing.

Without hesitation, the wife said, "Black."

I guess I looked somewhat surprised, for she continued, "Well, the ring is anyway."

J. A. R., M.D.
Delray Beach, Fla.

A Stitch in Time

It was 28 years ago, and I had not yet learned to tell the truth without offending. My patient was, to me, a respectable grass widow who made her living at Jimmy's notorious gambling den. The missed period, her profuse cramps, and hemorrhage with "fleshy" clots meant only one thing to this Tyro in medicine—an early abortion.

"Madame," I blurted, "you have just had a miscarriage."

The grass widow looked at me in startled horror and unbelief. Miserably, I realized her righteous indignation might be justified. I started to apologize for my possible error in diagnosis.

"Oh, forget it Doctor," she consoled. "I was just thinking. If I had known I was pregnant, I could have swallowed a whole drug store and been spared all this trouble."

T. E. M., M.D.
Washington, D. C.

At That Age?

Mother to Doctor . . . "But doctor, how can you circumcise him without cutting the bone."

G. F. H., M.D.
Little Rock, Ark.

When you think of

specify

Dram

Everyone thinks

it's a "treat"...

Dramcillin-250

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...liquid oral penicillin with real "taste appeal"

...potassium penicillin G—the ideal oral penicillin salt

...higher initial peaks and more prolonged blood levels

...250,000 units of buffered potassium penicillin G solution per teaspoonful

...fully effective in 3 to 4 teaspoonful doses daily—no disturbance of sleep or feeding schedules

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...delicious flavor, particularly suitable for the younger child

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just one capsule t.i.d.

dry fill, no fish oil

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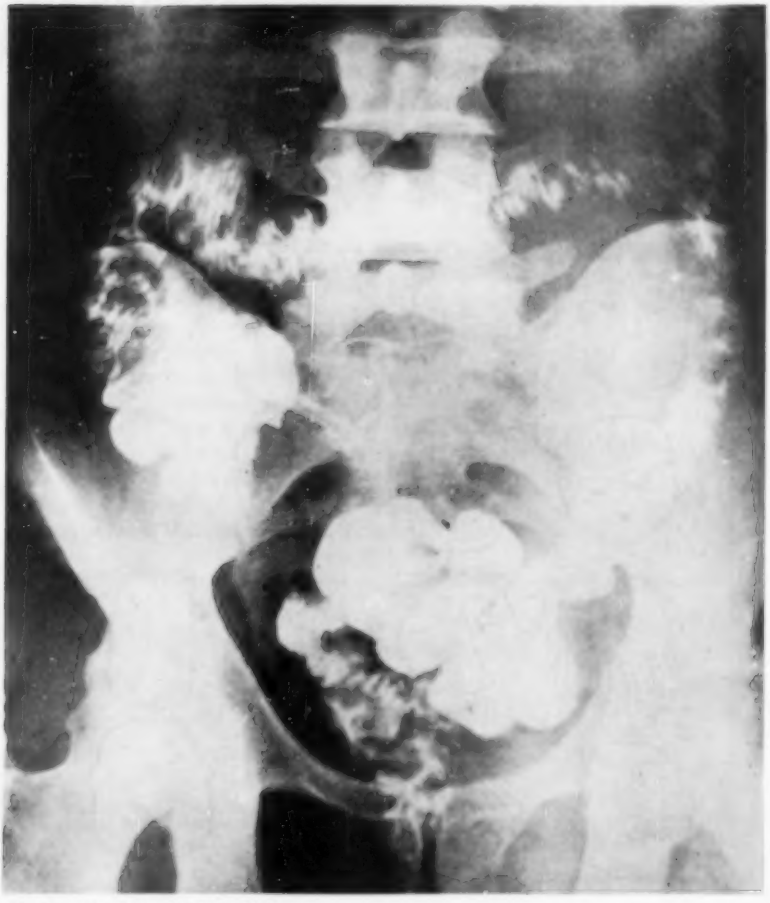
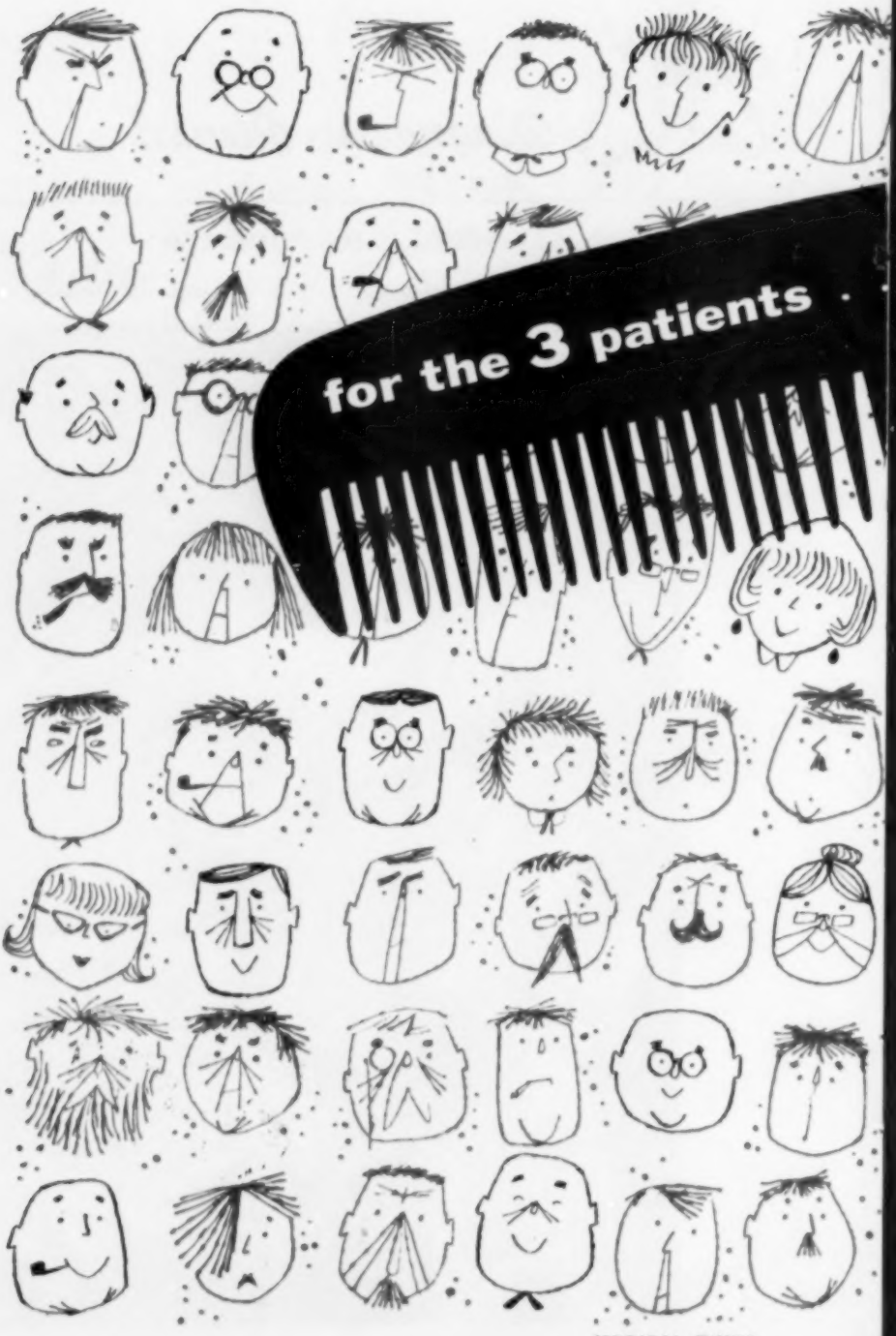
Diagnosis, Please!

WHICH IS *YOUR* DIAGNOSIS?

1. Carcinoma of cecum
2. Fibroid of uterus
3. Intussesception
4. Appendiceal abscess
5. Terminal ileitis
6. Amebiasis

(ANSWER ON PAGE 90a)

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who have

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of the scalp

FOR the scalp-scratchers, shoulder-brushers and comb-clutterers, there's welcome relief with SELSUN Sulfide Suspension.

Published reports on more than 400 cases[1-3] show that SELSUN completely controls seborrheic dermatitis in 81 to 87 per cent of all cases, and in 92 to 95 per cent of common dandruff cases. It keeps the scalp free of scales for *one to four weeks*—relieves itching and burning after only two or three applications.

SELSUN is remarkably simple to use. Your patients apply it and rinse it out while washing the hair. It takes little time. No complicated procedures or messy ointments. Ethically advertised and dispensed only on prescription. In 4-fluidounce bottles with directions on label. Abbott

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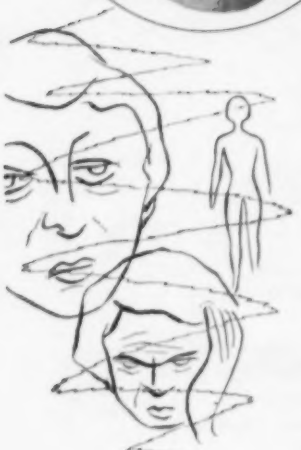


new

relaxant-sedative

Seconesin®

brings pleasant relaxation of mind and body to the tense, anxious, nervous patient.

Seconesin Does More than ordinary sedatives ..... it relaxes both mental and physical tensions to give a more comprehensive calming effect.

Seconesin is Safer—it contains the modern, safe relaxant mephenesin with safe, gentle secobarbital. Both work so well together that only minimal dosage is required for optimum effect—both act promptly and are eliminated promptly. There is no fear of "hangover." Patients do not feel sleepy or "logy" as with usual sedatives. They relax but stay mentally alert, able to pursue normal activities.

Euphoric Effect is Usually Marked – not the stimulated euphoria of amphetamine-like drugs but a relaxed feeling of well-being, of being comfortably and pleasantly at ease!

Seconesin is a handy product to keep in your bag, or in your office. *Why not send for a supply, with additional information, today.*

Composition of **Seconesin:** Lime-green, scored tablets each containing Mephenesin 400 mg. and Secobarbital 30 mg.

Dose: 1 tablet t.i.d., p.c.; 1 or 2 tablets on retiring if needed. Daytime sedation with **Seconesin** is usually so effective that most patients relax into refreshing sleep without nighttime dosage.

CROOKES LABORATORIES, INC. Crookes MINEOLA, NEW YORK

Therapeutic Preparations for the Medical Profession

Coroner's Corner

The Telltale Heart

Through the years, my experience as coroner has taught me that a very careful examination of a body is of the utmost importance. Often the most significant lesion is so obscure as to be almost completely overlooked. This fact is borne out by the following case, one of the most interesting criminal cases I can recall having seen.

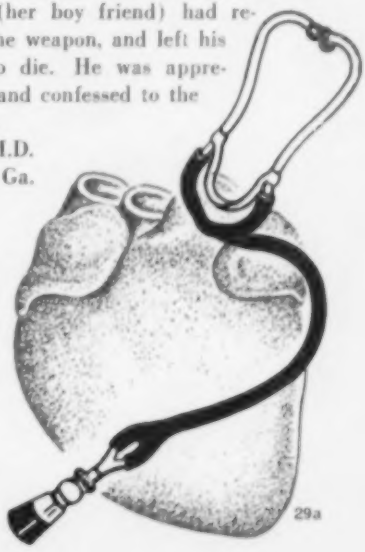
A young mulatto girl, about twenty years of age, was brought to the hospital, moribund. She had the most unusual heart sounds that anyone here had ever heard. She had been found in her rooming house, unconscious. The last person who was known to have seen her was a young man whom she had been dating, but as far as anyone knew, there had been no quarrel between them. Despite heroic measures, she died shortly after admission to the hospital.

Autopsy revealed a normal-appearing, well-nourished female, without any overt evidence of trauma. A foamy fluid issued from the mouth and nostrils. Upon opening the chest and abdomen, I was struck immediately by the marked congestion of the viscera. The lungs were particularly wet. There were in the pericardium a slight amount of pink-red fluid, and a small clot, to which I paid no attention at the time. No poison or escharotic was found in the stomach. In dissecting the heart, I found a remarkable condition. The mitral valve had been slit, producing mitral insufficiency. There was no chronic disease that could account for the slit. This suggested a traumatic death, very likely murder. I retraced the steps of the autopsy.

On examining the surface of the heart, I found what appeared to be a small aperture on the anterior wall, but this lesion was very occult. I then rechecked the skin of the chest, and observed a tiny, sealed-over opening situated near the left breast fold, about the diameter of a match stick. Scraping away a thin crust of blood, I probed the hole; it went through the skin and chest muscles, entered the chest cavity, and continued on into the heart (when the heart was replaced in its original position). The circumstances leading to death were then apparent.

The deceased had been stabbed in the heart with an ice-pick. The mitral valve was thereby divided, and the victim died of acute mitral insufficiency. The assailant (her boy friend) had removed the weapon, and left his victim to die. He was apprehended and confessed to the murder.

J.C.N., M.D.
Atlanta, Ga.



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BRAND OF OXYTETRACYCLINE

...meets the physicians' requirements for truly broad-spectrum therapy of a wide range of common infections ...supplied in convenient oral, topical and parenteral preparations

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A NEW EXPERIENCE

RAUWIDRINE—a new experience in serenity and pleasant confidence for the depressed and melancholy, the dispirited and frustrated patient.

The contained Rauwiloid not only creates the feeling of serenity but also largely prevents the cardiac pounding, tremulousness and insomnia so often produced by amphetamine alone—and without the use of barbiturates.

In obesity, the appetite-suppressing effect of amphetamine can be maintained for long periods, and the feeling of deprivation is averted.

Rauwidrine combines 1 mg. of Rauwiloid with 5 mg. of amphetamine in one slow-dissolving tablet.

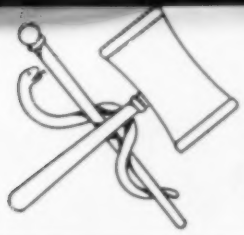
For mood elevation, usual initial dosage, 1 to 2 tablets before breakfast and lunch.

For obesity, 1 or 2 tablets 30 to 60 minutes before each meal.

Physicians are invited to send for clinical test samples.

Riker

LABORATORIES, INC.
LOS ANGELES 48, CALIFORNIA



What's Your Verdict?

Edited by Ann Picinich, Member of the Bar of New Jersey

A woman of about 74 years consulted her physician, who advised the removal of her gallbladder, to which she consented. Numerous surgical sponges were used for wiping and walling off the abdominal cavity from possible infections. At the conclusion of the operation the incision did not heal, and the suppuration became more pronounced, until nearly two months later the sponge was discovered to be the cause of the trouble. On removal of the sponge it was found that it had rotted a hole in the stomach necessitating the injection of food to keep the patient alive. Further treatment followed until the hole in the stomach sufficiently healed to retain food. As a result the patient endured great suffering and her health was permanently impaired, for which injuries she now seeks compensation.

The doctor offers as a defense proof that it is the custom and practice generally among surgeons in the locality, where a major operation is to be performed, to have present among others a "sponge nurse." The duty of this nurse is to correctly count the number of operative sponges used, and it is the custom of surgeons to rely upon the sponge count so reported by the sponge nurse. The doctor did in fact rely upon the nurse's count and thereby followed the general practice of surgeons.

The trial court charged the jury: "If under the evidence in this case the doctor had a right to rely upon the count of the sponge nurse who was in the

employ of the hospital and if surgeons practicing in this vicinity in the technical routine of an operation of this character are accustomed to rely upon the count of the sponge nurse, then the court says to you as a matter of law that your verdict herein should be in favor of the defendant."

Plaintiff excepted to this charge as error, and the case was appealed to the Supreme Court. How would you decide?

The Supreme Court found the charge to be erroneous and remanded the cause for a new trial. "The duty of a surgeon to exercise care cannot be delegated to another, without recourse. Custom will not justify a negligent act or exonerate from a charge of negligence. Usage cannot avail to establish as safe in law that which is dangerous in fact. We therefore hold both upon reason and authority that the test of the usage or practice of having a sponge nurse to count the sponges is competent as reflecting upon the care and diligence of the surgeon, but that reliance upon such custom alone is not a complete defense to the charge of negligence."

Based on decision of
Supreme Court of Ohio

8 reasons for using

'AERODRIN'® BRAND

Antibiotic Decongestant

INTRANASAL SOLUTION

in bacterial rhinitis and sinusitis

1. BLAND TO INFLAMED NASAL MUCOSA

'Aerodrin', an aqueous solution, is bland to sensitive and inflamed nasal tissues.

2. PROMOTES DRAINAGE AND FREE BREATHING

'Vasoxyl'® Hydrochloride brand Methoxamine Hydrochloride, 5 mg. per cc., gives gentle but prompt and prolonged vasoconstriction.

3. ANTI-GRAM-NEGATIVE

'Aerosporin'® Sulfate Polymyxin B Sulfate, 5,000 Units per cc., eliminates most gram-negative bacilli, particularly *H. influenzae and Ps. aeruginosa (B. pyocyaneus).*

4. ANTI-GRAM-POSITIVE

Neomycin, 5 mg. per cc., eliminates most gram-positive bacilli and cocci, and certain gram-negative organisms, including *Proteus vulgaris.*

5. ACID pH

The pH is maintained slightly on the acid side.

6. NO SECONDARY ENGORGEMENT

As the effect of 'Aerodrin' subsides, there is no intensification of congestion due to the product.

7. NO INHIBITION OF CILIA

Respiratory and olfactory epithelia are unimpaired and ciliary action uninhibited by 'Aerodrin'.

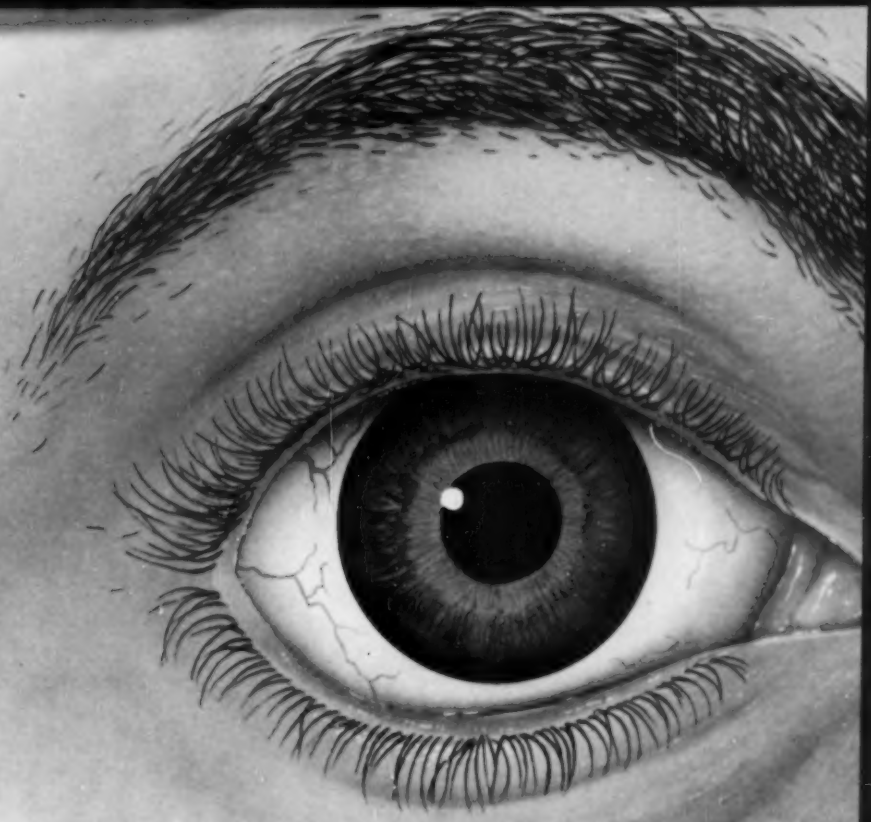
8. NO CENTRAL STIMULATION

The vasoconstricting compound 'Vasoxyl' has no central stimulatory action, therefore causes no insomnia or "jitteriness."

Since nasal congestion and some degree of infection are nearly always concomitant, either one predisposing to the other, complete treatment calls for double action—vasoconstriction and antisepsis.

Available in plastic spray-bottles of ½ fl. oz., and bottles of ½ fl. oz. with dropper.

BURROUGHS WELLCOME & CO. (U. S. A.) INC., Tuckahoe 7, N. Y.



in eye disorders...

individualized therapy

curbs inflammation
combats infection
protects the injured eye

CORTOMYD

Ophthalmic Suspension—Sterile

CORTOGEN and Sodium SULAMYD

and...

CORTOMYD

other specialized preparations
for specific needs

for refractory eye allergy

CORTICLORON

Sterile **Suspension**

(CORTOGEN plus CHLOR-*TRIMETON*®)

for cortisone therapy

CORTOGEN

Acetate Ophthalmic Suspension—*Sterile*

standard for eye infections

SODIUM SULAMYD

Ophthalmic Solution 30%—*Sterile*
Ophthalmic Ointment 10%

NEW—for mild or moderately severe infections
Ophthalmic Solution 10% with Methylcellulose—*Sterile*

SCHERING

CORTOMYD,® brand of cortisone acetate with sodium sulfacetamide.
CORTICLORON,* brand of cortisone acetate and chlorprophenpyridamine maleate.
CORTOGEN® Acetate, brand of cortisone acetate.
Sodium SULAMYD,® brand of sodium sulfacetamide.

*T.M.

Schering

NOW *in urinary tract infections therapy is facilitated by prescribing the new convenient dosage form*

Mandelamine®

(BRAND OF METHENAMINE MANDELATE)

"HAFGRAMS" 0.5 Gm. (7½ Gr.) each

to provide

...continued therapeutic drug levels of Mandelamine

...greater patient convenience

...better patient cooperation

with this new dosage schedule:

adults	morning ▮▮	noon ▮▮	evening ▮▮	0.5 Gm.
children over five	morning ●	noon ●	evening ●	0.25 Gm.
infants under one	morning ●		evening ●	0.25 Gm.

Clinical samples may be obtained by writing to Professional Service Department

Nepera Chemical Co., Inc.
Nepera Park, Yonkers 2, N. Y.

M-3102-M

the only

Therapeutic Formula

multivitamin tablet

this Small

this Potent

→ Vitamin A	25,000 U.S.P. units (synthetic)
Vitamin D	1000 U.S.P. units
Thiamine Mononitrate	10 mg.
Riboflavin	5 mg.
Nicotinamide	150 mg.
→ Vitamin B_{12}	6 mcg.
Ascorbic Acid	150 mg.

this Pleasing

A solid tablet: no fish-oil taste, odor, burp or allergies.

is

OPTILETS®

(Abbott's Therapeutic Formula Multivitamins)

Abbott

411181

After Hours

Photographs with brief descriptions of **your** hobby will be welcomed. A beautiful imported German apothecary jar will be sent to each contributor.

For 32 years I have been a General Practitioner, and for the same number of years my relaxation and my vacations have been fishing sprees . . . first with the wife and youngsters (ropes around the little ones, tied to the boat) . . . later stag fishing parties along the Great Northwoods chain of Border Lakes; then the "Famous Fourteens," the same crowd with their wives, in the same rugged country. I've also greatly enjoyed deep-sea fishing in the Atlantic, around the Florida Keys and Ft. Lauderdale.

All of this had a therapeutic effect . . . a rejuvenating effect . . . and now that tempo has laid me up with the inevitable "coronary," I have many memories of happy days with the rod and reel.

My wife has had a hobby of old glass collecting. She has a fine lot of colored and priceless cruets; also, a complete set of old "Priscilla" glassware. Most of the lamp bases in our home are made from antique bowls, pitchers or vases. A really workable hobby for her has also been painting in oils and water-colors. She never has enough time to do all the things she has lined up.

You other G.P.'s had better get set with some good hobby before the old coronary gets you, too.

J. L. Mills, M.D.
Winnebago, Minn.

Dr. Mills standing at extreme left and extreme right with fellow "anglers." Two views of Dr. Mills' recreation room, built to resemble a ship's deck.

PAIN HAS TWO ASPECTS. WHY TREAT ONLY ONE?

Pain has two aspects—physical and psychic. Most analgesics, however, treat only physical pain. But as Krantz and Carr point out: ". . . the emotional trauma produced by the pain is an essential segment of the pain syndrome which must be treated."[1]

'Daprisal' does just that. 'Daprisal' relieves the psychic aspects of pain because it contains the components of Dexamyl* —S.K.F.'s widely prescribed mood-ameliorating preparation.

'Daprisal' also relieves physical pain because it provides the combined analgesic effect of acetylsalicylic acid and phenacetin —potentiated by amobarbital.

FORMULA: Each 'Daprisal' tablet contains Dexedrine* Sulfate (dextro-amphetamine sulfate, S.K.F.), 5 mg.; amobarbital, ½ gr. (32 mg.); acetylsalicylic acid, 2½ gr. (0.16 Gm.); phenacetin, 2½ gr. (0.16 Gm.).

DAPRISAL*

for the relief of pain and the mental and emotional distress that prolongs and intensifies pain

Smith, Kline & French Laboratories, Philadelphia

1. Krantz, J. C., and Carr, C. J.: Pharmacologic Principles of Medical Practice, Baltimore, Williams & Wilkins Co., 1951, p. 587.

*T. M. Reg. U. S. Pat. Off.

Diets look good on paper

but patients eat food!

It's easy to prescribe a diet . . . and it will be just as easy for patients to follow one, if Ac'cent is recommended with the diet.

Ac'cent brings out the *natural* flavors of foods, and patients will find that it makes the most bland food taste-stimulating and palatable. Even in foods that are held for a long period of time, Ac'cent retains the true delicious flavors.

Ac'cent is 99+% pure monosodium glutamate, in crystal form, obtained from natural food sources. It is not a synthetic chemical, and it is nontoxic. Ac'cent contains 12.3 per cent of sodium. Ac'cent is not a salt substitute, but it will make foods more flavorful. Include Ac'cent in your special diets . . . "finicky eaters," too, will find it makes foods taste better . . . it is available at neighborhood food stores.

May we send you a brochure on **Ac'cent**

(99+% pure monosodium glutamate)

makes good food and good cooking taste better!

Amino Products Division, **International Minerals & Chemical Corp., Chicago 6, Ill.**

AC'CENT, T.M. Reg. U. S. Pat. Off.

ELECTRON PHOTOMICROGRAPH

Klebsiella pneumoniae 35,000 X

Klebsiella pneumoniae (Friedländer's bacillus) is a Gram-negative capsulated organism commonly involved in various pathologic conditions of the nose and accessory sinuses, in addition to bronchopneumonia and bronchiectasis.

It is another of the more than 30 organisms susceptible to

PANMYCIN*

100 mg. and 250 mg. capsules

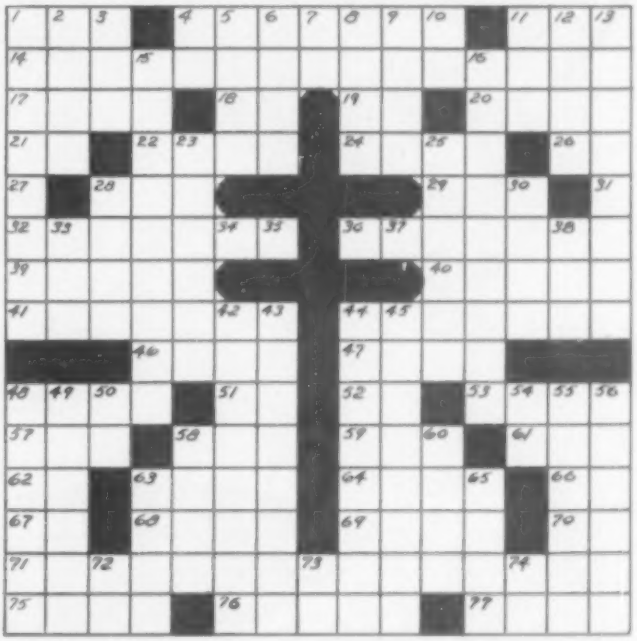
Upjohn

*TRADEMARK, REG. U.S. PAT. OFF.

MEDICAL TEASERS

A Challenging Crossword Puzzle for the Physician

(Answer on page 102a)



Contributed by J. C. Hutchinson

ACROSS

1. —ever, Corpse
4. Fancy
11. American Expeditionary Forces (abbr.)
14. TB germs (2 Words)
17. Smooth (breathing)
18. Alcoholics Anonymous
19. Internal Revenue
20. Slovenly person
21. Masculine title (abbr.)
22. Barrel
24. Welsh onion
26. Quarter
27. Naperian log base
28. 1/1000 of a dollar
29. Denoting saturated hydrocarbon (suffix)
31. Oxygen (sym.)
32. American phthisiologist
36. Largest flatfish
39. Astragulus
40. Algerian measure
41. Tonic spasm
44. Externally parasitic
46. Portray
47. Ghon's ——— (pl.)
48. Shield
51. Egyptian soul-symbol
52. Let there be made (Lat. abbr.)
53. Stains
57. Legendary British King
58. Black onyx
59. Son of Bani (Bibl.)
61. Small insect
62. Exist
63. Discovered tubercle bacilli
64. Break sharply
66. 100 sq. meters
67. Either ——
68. Oklahoman migrant
69. Ginkgo
70. Masurium (symb.)
71. Discovered TB diagnostic aid (2 wds.)
75. Swift (rf. sp.)
76. Deserves reward
77. Related

DOWN

1. Co-developer of TB vaccine
2. Maple tree genus
3. Hubbub
4. Provided
5. Meuse River (Dutch)
6. Showy Asiatic tree
7. Drop
8. Wading bird
9. Not one
10. Out of (pref.)
11. Whole amount
12. ——uent, fluent
13. Healed (as TB)
15. Uterine mucosal cells
16. Anti-TB drug
23. Italian architect
25. N. European sea
28. Take multure from
30. Spanish river
33. Raced
34. Article
35. University (abbr.)
36. 200 (Roman num.)
37. One
38. Upper respiratory infection (abbr.)
42. Mental defective
43. Curse
44. Common feature of TB
45. Watchwork brackets
48. Bend of the arm (pl.)
49. Co-discoverer of TB vaccine
50. Reservoir of instinctive impulses
54. Arabic "y"
55. Hardest animal substance
56. Lung marking characteristic of chronic phthisis
58. Jest
60. Metallic thread
63. Eastern eye-shadow
65. Tuberculous spondylitis is named for him
72. French article
74. Japanese game

Prescribe home ultraviolet treatments

valuable adjunct in physical rehabilitation

HANOVIA
PRESCRIPTION MODEL
ULTRAVIOLET QUARTZ LAMP

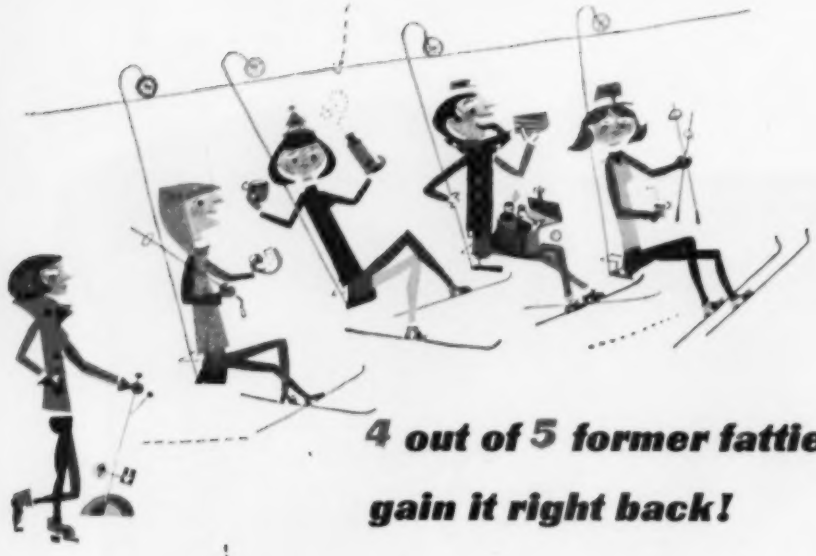
You ease your schedule by prescribing home ultraviolet therapy, a recognized ancillary treatment in physical rehabilitation. For proper exposure to ultraviolet has proved particularly effective in increasing blood hemoglobin levels, and for improving utilization of calcium, iron, nitrogen, and phosphorus in the blood. Improves appetite and sleep in selected forms of debility and secondary anemia, and speeds convalescence after operations and after infectious diseases.

Developed especially to deliver most effective wavelengths in the stimulating portions of the ultraviolet spectrum, the Hanovia Prescription Model Ultraviolet Quartz Lamp, prescribed by you, may be purchased from local surgical supply dealers on convenient payment terms.

Information literature on request.

HANOVIA
chemical & mfg. co.

DEPT. MT-12, Newark 5, N. J.



4 out of 5 former fatties...

gain it right back!

but with this simple plan

5 out of 5 can keep weight off

the *Am Plus*® POST-DIET PLAN

80% fail to sustain weight loss after the diet.*

Just one AM PLUS capsule daily: before the day's "big" meal, before a club lunch or dinner, at snack time or whenever the patient finds temptation greatest.

AM PLUS is dextro-amphetamine plus 19 important vitamins and minerals. It helps rehabilitate post-dieting habits while augmenting nutritional intake.

*Aaron, H.: Weight Control, Consumer Reports 17:100 (Feb.) 1952.

Rx ROERIG

Chicago 11, Illinois

LETTERS TO THE EDITOR

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers, who are invited to comment on controversial subjects, names will be omitted when requested.

Likes MT

"Your journal has given me a great deal of pleasure because of your selection of articles as well as your excellent condensations.

"I also appreciate the reprints of these summarizations. They are as valuable as taking a post-graduate course on the particular subject."

C. M., M. D.
Albuquerque, N. M.

Appreciation

"I thought you would like to have this expression of appreciation. I particularly enjoy the 'Contemporary Progress' abstracts and the individual comments by specialists in the various fields of medicine. These are timely and well thought out."

G. M. G., M. D.
Portland, Maine

Top Journal

"Each month I eagerly await my copy of MEDICAL TIMES—a top journal for busy general practitioners. We hope the meaty and timely articles, such as you run, will keep coming."

D. H. S., M. D.
Bethlehem, Pa.

MODERN MEDICINALS

These brief resumes of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards and a record kept. This file can be kept by the physician for ready reference.

Adrenosem Salicylate Syrup, S. E. Massengill Co., Bristol, Tenn. Each 5 cc. (1 teaspoonful) contains 2.5 mg of adrenochrome monosemicarbazone present as 65 mg. of the sodium salicylate complex. Particularly desirable in children when Adrenosem is required as a preventive, preoperatively, or as a means of checking postoperative bleeding in tonsillectomies and adenoidectomies. **Dose:** Adults, preoperatively, 2 teaspoonfuls 3 or 4 hours prior to surgery and 2 teaspoonfuls immediately before the operation. May be followed by 1 teaspoonful dose every 3 or 4 hours, postoperatively, for 3 or 4 doses. If active, moderate bleeding is present postoperatively, the dose should be raised to 2 teaspoonfuls. In severe bleeding, this should be reinformed by intramuscular injection of 1 ampul (5 mg.). Children, under 12 years of age, one-half the adult dosage. **Sup:** In 4 ounce bottles.

Ansolysen, Wyeth, Inc., Philadelphia 2, Pa. Each tablet contains pentolinum tartrate, 40 mg. or 100 mg., each 10 cc. vial, 10 mg./cc. For moderate to severe and malignant hypertension. **Dose:** Average starting dose, 20 mg. q. 8 hours; total daily dose varies from 60 mg. to 600 mg. depending on individual. **Sup:** 40 mg./100's, 100 mg./100's, 10 cc. vial, 10 mg./cc.

Bevidoral Filmtabs, Abbott Laboratories, North Chicago, Ill. A specific therapeutic agent for convenient oral treatment of pernicious anemia and for primary treatment and maintenance therapy of macrocytic anemia. Combine Vitamin B_{12} activity with sufficient intrinsic factor (castle) to facilitate absorption and utilization of vitamin B_{12} from the gastrointestinal tract. **Dose:** As determined by physician. **Sup:** In bottles of 25 and 100 Filmtabs. Two Filmtabs represent 1 U.S.P. unit (oral).

Bexitab, Chicago Pharmacal Company, Chicago 40, Ill. Tablet (cream color): vitamin-hematinic. Each tablet contains Vitamin B_{12} (with intrinsic factor) $1/2$ USP oral u. For various anemias including pernicious a. and tropical and non-tropical sprue; pellagra; to promote normal growth in children; appetite stimulant. **Dose:** Average, 1 twice daily before morning and evening meals; in more severe cases, 2 tablets taken before meals. **Sup:** In bottles of 30 tablets.

Cogentin, Sharp & Dohme, Div. of Merck & Co., Inc., Philadelphia 1, Pa. A new drug in tablet form for the relief of parkinsonian tremor and rigidity. Recommended for use in the symptomatic and palliative treatment

—Continued on page 52a

Green light for asthma?

not necessarily . . .

Tedral, taken at the first sign of attack, often forestalls severe symptoms.

relief in minutes . . . Tedral brings symptomatic relief in a matter of minutes. Breathing becomes easier as Tedral relaxes smooth muscle, reduces tissue edema, provides mild sedation.

for 4 full hours . . . Tedral maintains more normal respiration for a sustained period—not just a momentary pause in the attack.

Prompt and prolonged relief with Tedral can be initiated any time, day or night, whenever needed, without fear of incapacitating side effects.

Tedral provides:

theophylline	2 gr.
ephedrine	⅜ gr.
phenobarbital	⅛ gr.

in boxes of 24, 120 and 1000 tablets

Tedral®

WARNER-CHILCOTT

SPERSOIDS®:
Dispersible Powder
50 mg. per teaspoonful (3 Gm.)

OINTMENT *(3%)*

PEDIATRIC DROPS: *Cherry flavor. Approx. 5 mg. per drop. Graduated dropper.*

ORAL SUSPENSION:
Cherry flavor. 250 mg. per 5 cc. teaspoonful.

ACHR

now available in these many convenient forms:

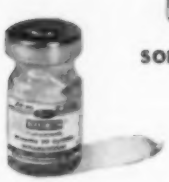
OPHTHALMIC OINTMENT *(1%)*

TABLETS: *250 mg., 100 mg., 50 mg.*

CAPSULES: *250 mg., 100 mg., 50 mg.*

INTRAVENOUS: *500 mg., 250 mg., 100 mg.*

SOLUBLE TABLETS: *50 mg.*



INTRAMUSCULAR: *100 mg.*

OMYCIN*

Tetracycline Lederle

EAR SOLUTION *(0.5%)*

ACHROMYCIN, the new broad-spectrum antibiotic, is now available in a wide range of forms for oral, topical and parenteral use in children and adults. New forms are being prepared as rapidly as research permits.

ACHROMYCIN is definitely less irritating to the gastro-intestinal tract. It more rapidly diffuses into body tissues and fluids. It maintains effective potency for a full 24-hours in solution.

ACHROMYCIN has proved effective against a wide variety of infections including those caused by Gram-positive and Gram-negative bacteria, rickettsia, and protozoan organisms.

REG. U. S. PAT. OFF.

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY Pearl River, N. Y. Lederle

If you could "take apart" a droplet of *KONDREMUL* mineral oil emulsion...

...you would find it *different because*

each microscopic oil globule is encased in a tough, indigestible film of Irish moss for perfect emulsification and complete mixing with the stool.

KONDREMUL® PLAIN

COLLOIDAL EMULSION OF MINERAL OIL AND IRISH MOSS

for chronic constipation

KONDREMUL *Plain*—containing 55% mineral oil, bottles of 1 pt.

Also available: KONDREMUL *With Cascara* (0.66 Gm. per tablespoon), bottles of 14 fl. oz., KONDREMUL *With Phenolphthalein* (0.13 Gm. per tablespoon), bottles of 1 pt.

highly penetrant... highly demulcent... highly palatable—no danger of oil leakage or interference with absorption of nutrients when taken as directed

THE E. L. PATCH COMPANY
STONEHAM, MASSACHUSETTS

—Continued from page 46a

of all etiologic groups of Parkinson's syndrome — arteriosclerotic, postencephalitic, or idiopathic. Therapy is directed toward control of disturbing symptoms to permit the patient maximum integration of function and a minimum of discomfort. **Dose:** May be administered once daily upon retiring, particularly when used in conjunction with other drugs. **Sup:** In bottles of 100 tablets.

Compocillin Oral Suspension, Abbott Laboratories, North Chicago, Ill. A ready-mixed oral suspension of the penicillin salt of hydrabamine which remains stable at least 12 months and has an appealing fresh banana smell and taste. Effectively used in staphylococci, gonococci, streptococci, pneumococci, and in cases where oral penicillin therapy is known to be therapeutically effective. May also be used prophylactically before and after such procedures as tonsillectomy and dental extractions, also in patients with a history of rheumatic fever, rheumatic heart disease and other conditions where secondary infection is a recognized danger. **Dose:** Recommended initial adult dose is 1 or 2 5 cc. teaspoonfuls every 6 hours. May be administered before, after or with meals. **Sup:** In 2-fluid ounce bottles containing 300,000 units per 5 cc. teaspoonful.

Depo-Testadiol, The Upjohn Company, Kalamazoo, Mich. A combination of testosterone cyclopenthylpropionate and estradiol 17-cyclopentylpropionate (50 mg. and 2 mg.) with chlorbutanol in cottonseed oil. For long-lasting relief from menopausal symptoms and anabolic effects in aging patients. **Dose:** Administered parenterally as determined by physician. **Sup:** In 10 cc. multiple dose vials.

—Continued on page 54a

accuracy every time

Clinitest®

BRAND

for detection of urine-sugar

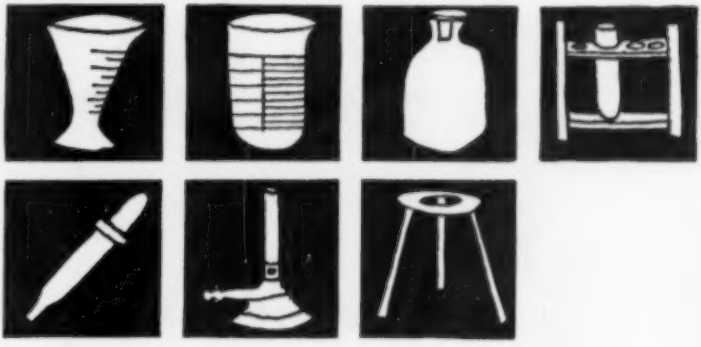
"Both *Clinitest* and Benedict's qualitative test are completely accurate when properly performed."[1]

but

"...there are fewer sources of error with *Clinitest*."[1]

and

"The routine Benedict test...is seldom well performed because of the difficulties of accurate measurement of reagent and urine and because of the practical difficulties of uniform heating; the much simpler and more readily standardized tablet test is to be preferred..."[2]



1. Cook, M. H.; Free, A. H., and Giordano, A. S.: Am. J. M. Technol. *19*:283, 1953.
2. Gray, C. H., and Millar, H. R.: Brit. M. J. *4824*:1361 (June 20) 1953.

Ames Diagnostics–Adjuncts in clinical management

AMES

COMPANY, INC • ELKHART, INDIANA

Ames Company of Canada, Ltd., Toronto

—Continued from page 52a

Diamox Intravenous, Lederle Laboratories, Pearl River, N. Y. An intravenous form of Diamox, a non-mercurial diuretic. Primarily intended for patients who are unable to take oral medication. Dose: Approximately 250 to 375 mg. given once daily or every other day. **Sup:** In 500 mg. vials to make a 5 cc. aqueous solution.

Elpafec, E. L. Patch Co., Stoneham 80, Mass. Each scored, uncoated tablet contains: penicillin G potassium, 250,000 units, acetophenetidin, 100 mg., salicylamide, 100 mg., phenyltoloxamine dihydrogen citrate buffered with calcium carbonate, 25 mg. Used for relief of symptoms and prevention of complications of the common cold and other acute respiratory infections. **Dose:** In acute upper respiratory infections, the recommended adult dosage is 1 tablet 3 times a day, preferably one, two or more hours after meals, for the duration of the symptoms of the cold. **Sup:** In bottles of 24 tablets.

Ilotycin Otic, Eli Lilly & Co., Indianapolis 6, Ind. Liquid solution: antibiotic. One bottle contains erythromycin glucoheptonate 25 mg.: one bottle of diluent contains polymyxin-B sulfate, 50,000 u. with benzocaine, 5%, in propylene glycol. At time of dispensing, liquid is added to the Ilotycin to make 5 cc. of solution. For infections of the external ear including otitis. **Dose:** 3 to 4 drops instilled into the external auditory canal of the infected ear t. or q.i.d. **Sup:** 5 cc.

Mycostatin, E. R. Squibb & Sons, New York 22, N. Y. A valuable prophylac-

—Continued on page 60a

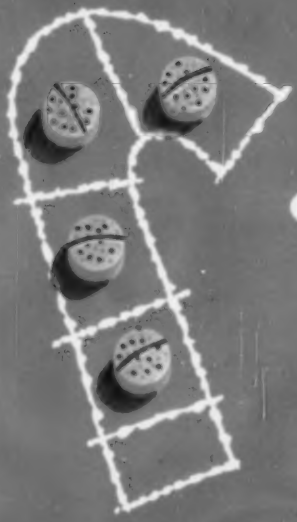
relieve children's colds, sniffles, fever

CORICIDIN

pediatric
(no caffeine)

MEDILETS

make treatment a "treat"



- multicolored, eye-appealing tablets
- delightful cherry flavor and aroma

MEDILETS may be swallowed, chewed, dissolved on tongue or in liquid and followed by a small amount of water.

Each CORICIDIN® *Pediatric* MEDILET® contains: CHLOR-TRIMETON® Maleate 0.75 mg. (1/100 gr.), aspirin 80 mg. (1¼ gr.), and acetophenetidin 16 mg. (¼ gr.).

Schering

CORICIDIN pediatric MEDILETS

*"a preoperative treatment of choice"**

ITRUMIL® SODIUM

(iothiouracil sodium CIBA)

in large, nodular goiters
substernal thyroid enlargements
thyroid glands with diffuse hyperplasia

From a study of 70 surgical patients, McClintock and Lyons found that subtotal thyroidectomy was easier in patients prepared with ITRUMIL than with other methods. Among their other favorable findings:

- Many patients had relief of pressure symptoms.
- Drop in pulse rate was sustained.
- 20 patients had significant preoperative weight gains.
- There was almost no oozing from the gland at operation.
- Friability was not a problem.
- Postoperative course was smooth.
- Low incidence of side effects.

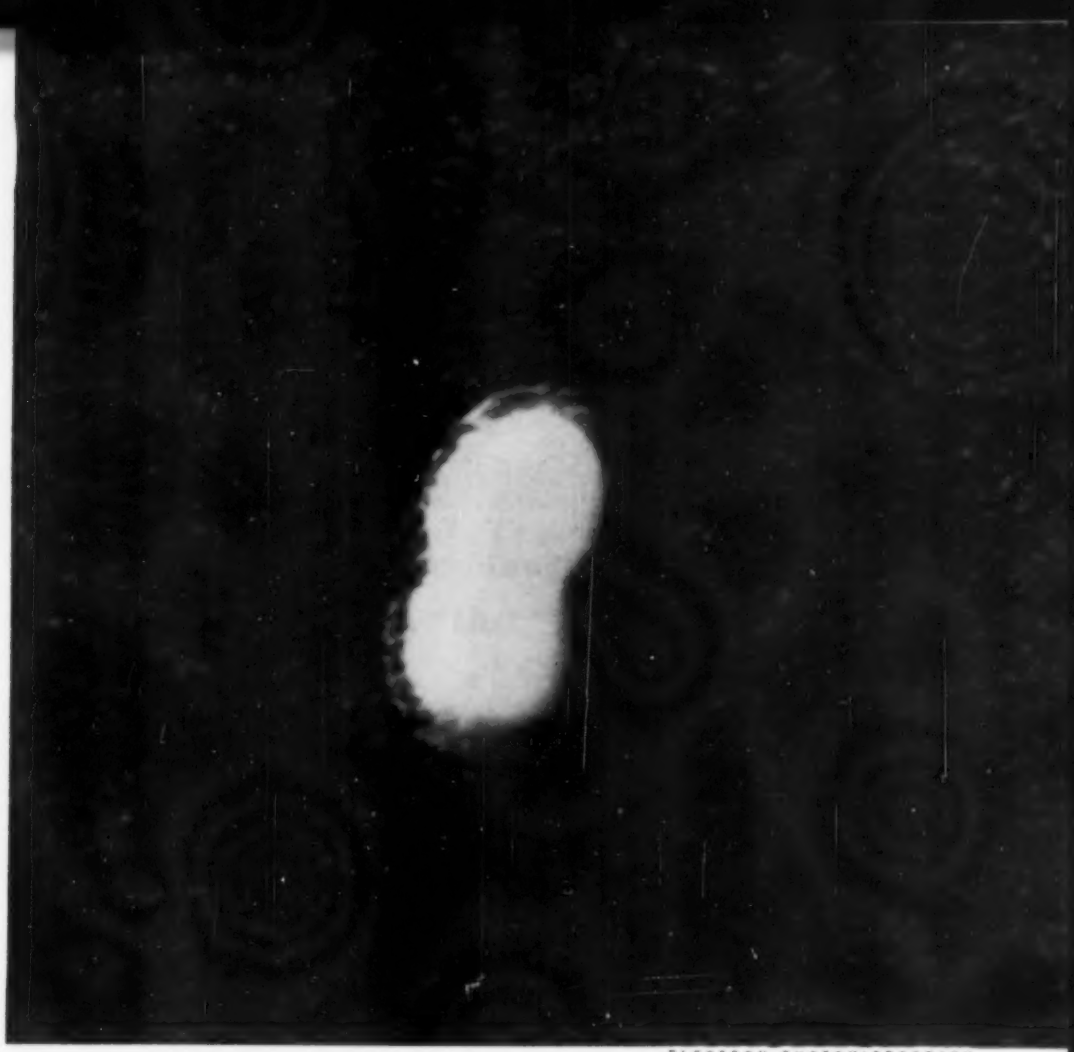
50-mg. scored tablets
Bottles of 100 and 1000.

ITRUMIL ... *a unique antithyroid drug with a unique mode of action*

*MC CLINTOCK, J. C., AND LYONS, J. J. A.: N. Y. STATE J. MED. 51:1633, 1951

C I B A *Summit, N. J.*

2/2049M



ELECTRON PHOTOMICROGRAPH

Diplococcus pneumoniae 35,000 X

Diplococcus pneumoniae (Streptococcus pneumoniae) is a Gram-positive organism commonly involved in

lobar—and bronchopneumonia • chronic bronchitis • mastoiditis • sinusitis otitis media • and meningitis.

It is another of the more than 30 organisms susceptible to

PANMYCIN*

[redacted]

100 mg. and 250 mg. capsules

*TRADEMARK, REG. U. S. PAT. OFF.

Upjohn

In addition to the usual aids in selecting an electrocardiograph . . .

Sanborn's "Test" and "Return Privilege" plan offers you

A 15-DAY EXPERIENCE OF YOUR OWN

SANBORN COMPANY, or any of its representatives, will be glad to furnish you with a list of Viso-Cardiette owners in your city, or area, so that you may ask *them* about their experiences with the Viso. We also invite you to ask us for completely descriptive literature on the Viso. And, if you are located in one of the thirty Sanborn Branch Office or Service Agency cities, or its environs, a representative will be more than glad to arrange a demonstration in your office. These are the customarily available aids in selecting an electrocardiograph, not necessarily exclusive to Sanborn.

However, exclusive *with* Sanborn is a "direct-to-user" policy which offers any physician or hospital added benefits in ECG ownership. Among these is the opportunity to use a Viso Cardiette *as your own,* for 15 days, and without obligation of any kind. (If, at the end of the test period, you don't like the Viso, you simply return it to us in its convenient, specially designed shipping carton.)

Thus, to the usual aids in judging and selecting an ECG, Sanborn lets you add *your own experience.* May we tell you more about this plan?

Also offered under this plan is the Sanborn METABULATOR, a metabolism tester with many conveniences. Descriptive literature is available.

SANBORN COMPANY

195 Massachusetts Avenue, Cambridge 39, Massachusetts

Ease of application

Transparency

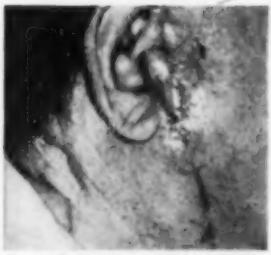
Flexibility and

Minimal redressing

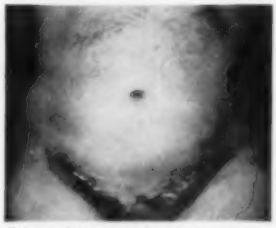
distinguish

AEROPLAST®

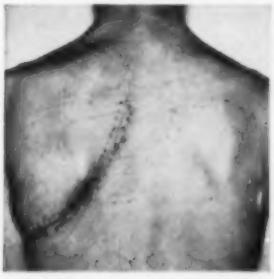
LIQUID SURGICAL DRESSING



Face laceration dressed with Aeroplast healed in four days.[2]



Bilateral inguinal hernia incisions protected by Aeroplast 4th post-operative day.[1]



Thoracotomy wound completely healed 13 days after operation and dressing with Aeroplast.[1]

Aeroplast dressing is peeled off like a glove 12 days after 2nd degree burn.[2]

Sprayed directly onto the lesion from an aerosol "bomb," Aeroplast forms a protective plastic film dressing over any body contour. Aseptic lesions remain sterile as long as the dressings are intact. Aeroplast dressings are impermeable to bacteria. To remove, Aeroplast is simply peeled off.

Rigler and Adams[1] dressed 110 operative wounds (including thoracotomies, laparotomies, inguinal hernias and miscellaneous lesions) with Aeroplast. "A single application sufficed in all but fifteen cases. No instances of systemic or clear-cut reactions were observed. Satisfactory results, with no evidence of erythema, infection, or necrosis were obtained in the majority of cases."

In 39 miscellaneous wounds dressed with Aeroplast (including appendectomies, open reduction of fractures, skin graft donor sites, lacerations, excoriation), Choy[2] reports infection in only one case, which promptly cleared with redressing, and uneventful healing in all others.

1. Rigler, S. P. and Adams, W. E.: Experience with a new sprayable plastic as a dressing for operative wounds, Surg. 36:792 (Oct.) 1954. (University of Chicago Clinics, Chicago, Surgical Service).

2. Choy, D. S. J.: Clinical trials of a new plastic dressing for burns and surgical wounds, Arch. Surg. 68:33 (Jan.) 1954. (Bellevue Hospital, New York, Third Surgical Division—Dr. John Mulholland, chief).

Supplied in 6 oz. aerosol-type dispenser through your prescription pharmacy or surgical dealer.

For reprints and literature write to:

Aeroplast® CORPORATION

431 DELLROSE AVENUE, DAYTON 3, OHIO

—Continued from page 54a

tic adjunct in all oral antibiotic therapy. Provides the first safe and effective oral therapy for the prevention and treatment of intestinal moniliasis. The drug is also recommended for prevention of intestinal moniliasis in patients prepared for intestinal surgery with oral antibiotics. **Dose:** As determined by physician. **Sup:** 500,000 unit tablets, bottles of 12 and 100.

Pamine Bromide Syrup, The Upjohn Company, Kalamazoo, Mich. An elixir containing 1.25 mg. Pamine (methscopolamine bromide) per 5 cc. For treatment of peptic ulcers. **Dose:** Administered orally as determined by physician. **Sup:** In four ounce bottles.

Phelantin Kapseals, Parke, Davis & Co., Detroit, Mich. A new combination of 100 mg. (1½ Gr.), Dilantin 30 mg. (½ Gr.) phenobarbital and 2.5 mg. (1/25 Gr.) desoxyephedrine hydrochloride. For the treatment of certain patients with epilepsy or other convulsive disorders. **Dose:** As determined by physician. **Sup:** In bottles of 100 Kapseals each, by prescription only.

Prometic Tablets, Harrower Laboratories, Inc., Jersey City 6, N. J. For nausea and vomiting of pregnancy. Also indicated in motion sickness, alcoholic gastritis, and non-specific vomiting. **Dose:** 3 or 4 tablets a day. **Sup:** In bottles of 50 tablets.

Rau-Tab, National Drug Co., Philadelphia, Pa. The alseroxylon fraction of Rauwolfia Serpentina in tablet form, 2 mg. per tablet. For control of mild to moderate hypertension, labile hyp-

—Continued on page 63a

THE 12-DAY TREATMENT FOR VAGINITIS

(say tri'va)

TRIVA

(BOYLE)

A simple vaginal douche, the patient's treatment of choice

• **EFFECTIVE**
in *any* pH medium

SAFE

CLEAN

ECONOMICAL

Published clinical evidence* proves Triva effective in all 3 forms of vaginitis:

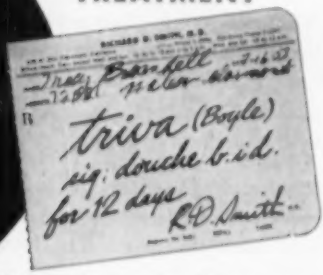
TRICHOMONAL: "43 (of 45) patients were apparently cured after one week." *

MONILIAL: "12 (of 15) patients became asymptomatic . . . after one week." *

NON-SPECIFIC: "23 cases of cervical erosion were treated. 13 were apparently cured." *

**Gernard, Henry C., and Gallagher, Robert: Obstetrics & Gynecology, 2:522 (November) 1953.*

SUGGESTED TREATMENT



Have patient return for re-examination on 14th day. If asymptomatic, prescribe two douches weekly to prevent re-infection.

Package contains instructions for mixing and douching, normally and during pregnancy or menstruation.

For full treatment package and literature, write . . .

BOYLE

BOYLE & COMPANY
Los Angeles 33, California

AVAILABLE AT ALL PHARMACIES
in convenient packages of 24 individual 3 Gm. packets, each containing 35% Alkyl aryl sulfonate, 53% Sodium sulfate, 2% Oxyquinoline sulfate and 10% Dispersant.

Vasocort': the safe **hydrocortisone** preparation for the local treatment of acute, chronic and allergic rhinitis

'Vasocort' contains *hydrocortisone* (compound F), the most effective anti-inflammatory agent. Because it is so effective, maximum therapeutic response is achieved topically with an extremely low concentration of hydrocortisone (0.02%)—the exact concentration of 'Vasocort'. Consequently, 'Vasocort' produces none of the untoward effects commonly associated with systemic hydrocortisone therapy.

In addition, 'Vasocort' provides the additive vasoconstrictive action of *two* superior decongestants —phenylephrine hydrochloride, for rapid onset of shrinkage, and Paredrine* Hydrobromide, for prolonged shrinkage. Yet, because each is present in relatively low concentrations, 'Vasocort' almost never produces rebound turgescence.

'Vasocort' is safe, not only for adults, but for children as well—even over extended periods of time. And remember, despite the fact that 'Vasocort' contains hydrocortisone, it is not expensive.

In prescribing, be sure to specify:

VASOCORT† SOLUTION

or

'VASOCORT' SPRAYPAK†

Smith, Kline & French Laboratories, Philadelphia 1, Pa.

*T.M. Reg. U.S. Pat. Off. for hydroxyamphetamine hydrobromide, S.K.F.
†Trademark. Patent 2181845 Other patents applied for

—Continued from page 60a

ertension in young or psychoneurotic patients, and management of angina. **Dose:** Orally as determined by physician. **Sup:** Scored tablets, in bottles of 50, 500, and 1,000.

Romilar Hydrobromide, Hoffmann-La Roche, Inc., Nutley 10, N. J. The first synthetic, non-narcotic drug to have the same antitussive action as codeine without sharing its drawbacks. 10 mg. of Romilar is equivalent in antitussive activity to 15 mg. of codeine. Unlike codeine, however, Romilar is non-narcotic, it has no analgesic activity, no constipating effect, and no addiction liability. Chemically, Romilar is d-3-methoxy-N-methylmorphinan hydrobromide. **Dose:** As determined by physician. **Sup:** In double-scored oral 10-mg. tablets as well as in the form of a syrup containing 10 mg/4 cc.

Sebizon, Schering Corporation, Bloomfield, N. J. 100 mg. sodium sulfacetamide (*p*-aminobenzene-sulfonylacetylamide) per gram. Indicated in primary and secondary cutaneous bacterial infections. **Dose:** Once or twice weekly, depending upon condition. Applied at bedtime and allowed to remain over night. **Sup:** In 4 ounce plastic bottle.

Steclin Hydrochloride, E. R. Squibb & Sons, New York 22, N. Y. A broad spectrum antibiotic produced by fermentation from a new species of Streptomyces. Recommended for infections caused by most gram-positive and gram-negative bacteria. On the basis of its chemical structure and clinical study, Steclin may be effective in various rickettsial infections. Particularly useful in the treat-

—Continued on following page

—Continued from preceding page

ment of mixed infections. **Dose:** The suggested minimum dose for adults is 250 mg. 4 times daily. Children, 20 mg. per kilogram of body weight, in divided doses. **Sup:** 50 and 100 mg. capsules, bottles of 25 and 100; 250 mg. capsules, bottles of 16 and 100.

Surital Sodium, Rectal, Parke, Davis & Co., Detroit 32, Mich. Each vial contains Surital sodium, 1.5 Gm. or 3.0 Gm. For preanesthetic sedation or for basal anesthesia, in children or adults. **Dose:** In 5% or 10% solutions, for rectal anesthesia, as determined by physician. **Sup:** In 1.5 Gm. and 3.0 Gm.

Tetrazets, Sharp & Dohme, Div. of Merck & Co., Inc., Philadelphia 1, Pa. Troches combining bacitracin tyrothricin and neomycin with benzocaine. For local therapy of certain mouth and throat infections; for symptomatic relief of sore throat, as an adjunct in the treatment of both gram positive and negative infections. **Dose:** Orally as required. **Sup:** In vials of 12 troches.

Thera-Deimal, Boyle & Co., Los Angeles, Calif. Tablet containing therapeutic vitamin formula plus minerals. Designed to meet increased nutritional needs during illness. For the management of vitamin and mineral deficiency states at the therapeutic level. **Dose:** One tablet daily, or as indicated. **Sup:** In bottles of 30, 100, and 1,000 tablets.

Thiomerin Suppositories, Wyeth Laboratories, Philadelphia, Pa. Suppository containing 0.5 Gm. mercaptomerin sodium, equiv. to 165 mg.

—Concluded on page 70a

. . . often effective *where oral aminophylline has failed*

. . . often tolerated *where oral aminophylline is not*

CHOLEDYL®

(choline theophyllinate, NEPERA)

the **new** *oral xanthine medication*

A symposium on CHOLEDYL was published recently (May, 1954) in the International Record of Medicine and General Practice Clinics. Here are three of the principal advantages of CHOLEDYL over oral aminophylline, as noted in this study—*

markedly higher blood levels

"... the ingestion of choline theophyllinate [choledyl] induced markedly significant increases in the theophylline blood levels when compared to those obtained after aminophylline. The increase was 60 to 75 per cent higher for the first two hours. . . ."[1]

(The therapeutic effect of aminophylline is due solely to its theophylline content.)

minimal side effects

"... gastrointestinal irritation with choline theophyllinate [choledyl] was a rare occurrence."[2]

no drug fastness

"Of great interest was the absence of the development of tolerance or resistance to the effects of the drug even after choline theophyllinate [choledyl] had been administered to patients for as long as 75 weeks."[3]

CHOLEDYL for *planned* diuresis, *prolonged* coronary vasodilation, *continued* relief of bronchospasm, *relief* and *prevention* of premenstrual tension

*Reprints available on request

supplied: *100 mg. tablets, bottles of 100 and 500;*

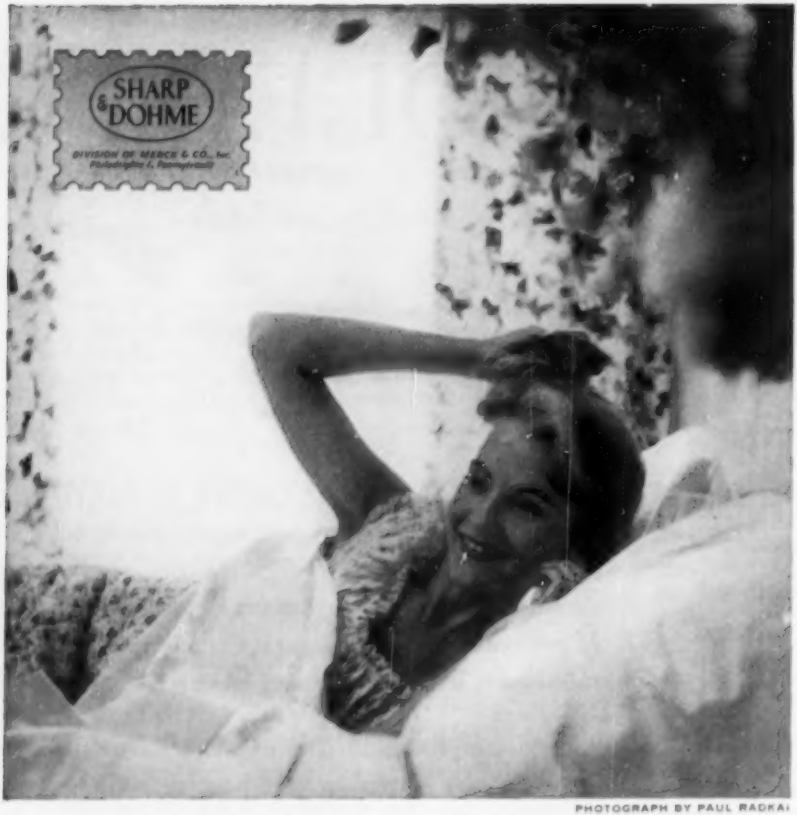
200 mg. tablets, bottles of 100, 500 and 1000.

dosage: Adults—*initiate with 200 mg. q. i. d.—preferably after meals and at bedtime. Adjust to individual requirements.* Children over six—*100 mg. t. i. d.*

1. Gagliani, J., et al.: Internat. Rec. Med. & Gen. Pract. Clin. 167:251, 1954.
2. Grossman, A. J., et al.: Internat. Rec. Med. & Gen. Pract. Clin. 167:261, 1954.
3. Batterman, R. C., et al.: Internat. Rec. Med. & Gen. Pract. Clin. 167:261, 1954.

NEPERA

NEPERA CHEMICAL CO., INC., Pharmaceutical Manufacturers • Nepera Park, Yonkers 2, N.Y.



PHOTOGRAPH BY PAUL RADKAI

Exhausting cough didn't keep her awake

METHAJADE®

ANTITUSSIVE

ACTIONS AND USES: METHAJADE gives your cough-wracked patients restful relief by reducing cough frequency, yet maintains the normal cough reflex. It dilates bronchi, makes dry cough productive.

METHAJADE is useful in treating paroxysmal cough associated with bronchitis, tracheitis, dry pleurisy, pulmonary cancer, asthma and certain hard-to-control post-surgical coughs.

QUICK INFORMATION: METHAJADE is *sugar-free*, lime-flavored. Each fl. oz. contains: 10 mg. Methadone*; 0.12 Gm. 'Propadrine'; 1.2 Gm. potassium citrate; 4.5 cc. diluted phosphoric acid, and alcohol 5%. Adults, 1 to 2 tsp. every 3 to 4 hours.

SUPPLIED: Pint Spasaver® and gallon bottles.

* Warning: may be habit-forming.

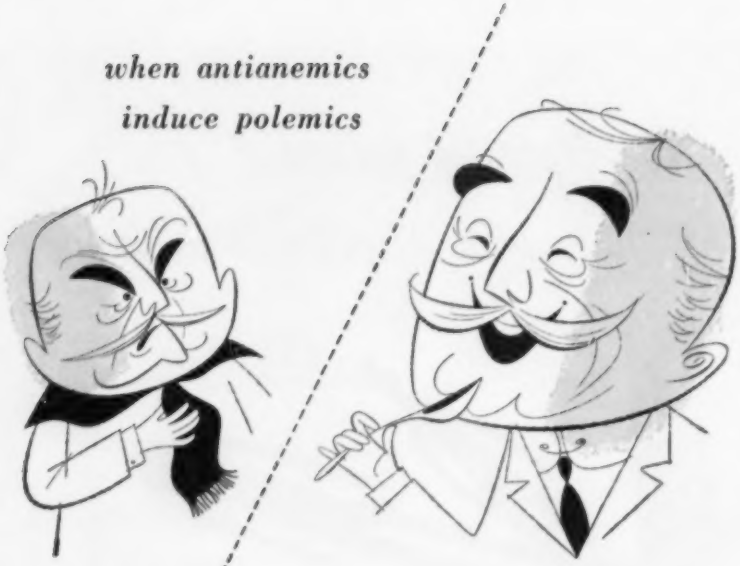
When the mother asks—

"Which vitamin drops should I use?" --
she looks to you for <u>specific</u> advice.
And when you specify easy-to-take
Vi-Penta® Drops 'Roche,' you know
they are dated to ensure full
potency...they contain <u>synthetic</u>
vitamin A plus seven other vitamins
(including B_6)...and they taste good.

Especially for pediatric infectious —

When you prescribe Gantrisin®
(acetyl) Pediatric Suspension
'Roche,' you may be sure of
two things: It really tastes
good -- so good even sick
children take it gladly --
and it offers wide-spectrum
antibacterial therapy that is
usually well tolerated.

when antianemics
induce polemics



℞

Mytinic®

Unusually pleasant-to-take liquid for comprehensive treatment of the common "secondary anemias".

Provides all the key factors on which normal hemopoiesis depends: iron, the antianemic principles of liver, and elements of the vitamin B complex, including B_{12}.

Send for a sample. *Taste it.*

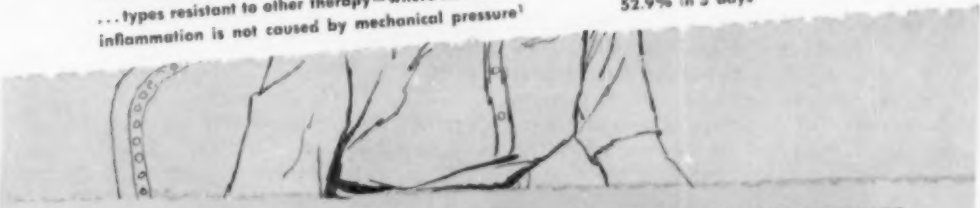
Bristol
LABORATORIES INC.
SYRACUSE, NEW YORK

Supplied for prescription in 12 ounce bottles.

PROTAMIDE® for NEURITIS

...types resistant to other therapy—where nerve root inflammation is not caused by mechanical pressure[1]

COMPLETE RELIEF OF PAIN
in 80.7% of patients...
52.9% in 5 days[1]



PROTAMIDE® for HERPES ZOSTER

...even cases unresponsive to a wide variety of other medications[2]

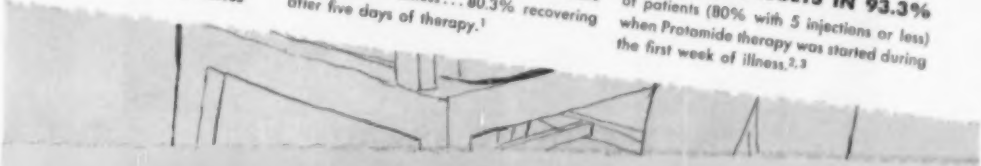
GOOD TO EXCELLENT RESULTS
in 82.7% of patients in two studies...
70.4% with 5 injections or less[2,3]

USE PROTAMIDE® FIRST

...as early as possible in the course of the illness

***in Neuritis*—COMPLETE RECOVERY IN 100%** of patients when Protamide therapy was started not later than the fourth day of illness... 80.3% recovering after five days of therapy.[1]

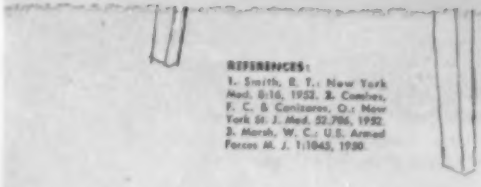
***in Herpes Zoster*—GOOD TO EXCELLENT RESULTS IN 93.3%** of patients (80% with 5 injections or less) when Protamide therapy was started during the first week of illness.[2,3]



PROTAMIDE® IS SAFE

with "no untoward reactions or evidence of toxicity"[2]

PROTAMIDE is a sterile colloidal solution of processed and denatured proteolytic enzyme obtained from the glandular layer of fresh hog stomach. It is supplied in boxes of ten 1.3 cc. ampuls, and the usual dosage is 1 ampul daily by intramuscular injection. Available through your regular source of supply.



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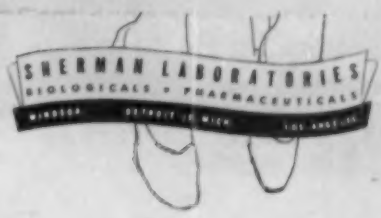
1. Smith, R. T.: New York Med. 8:16, 1952. 2. Comhes, F. C. & Canizares, O.: New York St. J. Med. 52:706, 1952. 3. Marsh, W. C.: U.S. Armed Forces M. J. 1:1043, 1950.



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of mercury, in a coca-butter base with white wax. Used as a diuretic agent in patients with edema resulting from congestive heart failure, cirrhosis of the liver, nephrosis and in carefully selected cases of subacute and chronic nephritis. **Dose:** Usual dose is 1 suppository daily after defecation. **Sup:** In boxes of 12 suppositories.

Tolseram, E. R. Squibb & Sons, Div. of Mathieson Chemical Co., New York 22, N. Y. A carbamic acid ester of mephenesin, with muscle-relaxing properties. For rheumatic and neurologic disorders, and as an adjunct in drug addiction and alcoholism or as a sedative in dentistry, prior to operative procedures or general dental manipulations—1 to 3 Gm. **Dose:** As determined by physician. **Sup:** In bottles of 100 tablets, 0.5 Gm. Also in suspension (20%), containing 1.0 Gm. per teaspoonful. Bottles of 1 pint.

Trimilane, E. S. Miller Laboratories, Inc., Los Angeles 11, Calif. A triple hormone injection, containing Natural estrogenic substances 2 mg., Progesterone 50 mg., and Testosterone propionate 25 mg. Used in the treatment of functional uterine bleeding. **Dose:** 1 cc. on each of 4 successive days. **Sup:** No. 814V10, Trimilane, 10 cc. vials, Boxes of 1, 6, and 25.

Tyzine, Pfizer Laboratories, Div. of Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Tetrahydrozoline hydrochloride a nasal decongestant in a 0.1% solution. For treatment of rhinitis associated with the common cold, hay fever, sinusitis, and nasopharyngitis. **Dose:** As determined by physician. **Sup:** In ounces and pints.

cherchez la femme?
non...

cherchez l'homme!

IN TRICHOMONAS VAGINALIS VAGINITIS

*"...the infection returns after coitus..."**

The male marriage partner should not be overlooked in your cases of Trichomonas vaginitis. You may prescribe with confidence XXXX FOUREX,® or RAMSES,® or SHEIK® as a rational adjunct to direct therapy of the female.

Your prescription by brand name will avoid patient-embarrassment at the point of purchase, insure top quality, and assure full acceptance of your regimen.

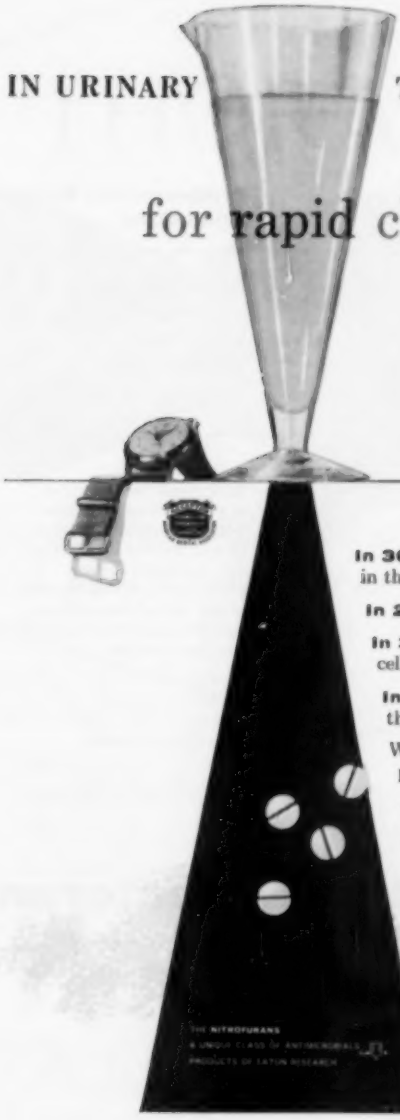
JULIUS SCHMID, INC. *Prophylactics Division* **423 West 55th Street, New York 19, N.Y.**

*Wharton, L. R.: Gynecology, Including Female Urology, ed. 2, Philadelphia, W. B. Saunders Company, 1947, pp. 446, 448.

use FURADANTIN first...

IN URINARY TRACT INFECTIONS

for rapid clearing of the urine



In 30 minutes: antibacterial concentrations in the urine

In 24 hours: the urine is frequently clear

In 3 to 5 days: complete clearing of pus cells from the urine

In 7 days: sterilization of the urine in the majority of cases

With Furadantin there is no proctitis, pruritus ani, or crystalluria.

Average adult dosage: Four 100 mg. tablets daily, taken with meals and with food or milk before retiring.

50 and 100 mg. tablets.

Oral Suspension, 5 mg. per cc.

EATON LABORATORIES
NORWICH, NEW YORK

FURADANTIN®
brand of nitrofurantoin, Eaton

Another dramatic use of 'Thorazine'

THORAZINE*

to stop intractable hiccups

'Thorazine' stopped hiccups (often after the first dose) in 56 out of 62 patients in seven different studies.

Excerpts from two studies:

'Thorazine' stopped hiccups in 8 out of 10 patients. In 6 patients, "the hiccups were arrested within 20 minutes" after the first dose of 'Thorazine', in 2 other patients after the second dose. "Most of the commonly available remedies for hiccups had been tried before ['Thorazine'] was administered to these patients." (Moyer et al.: Am. J. M. Sc. *228*:174, Aug., 1954.)

'Thorazine' "stopped hiccup in five of seven patients treated and partially controlled it in the other two." (Stewart and Redecker: California Med. *81*:203, Sept., 1954.)

Available in 10 mg., 25 mg., 50 mg. and 100 mg. tablets; 25 mg. ampuls (1 cc.) and 50 mg. ampuls (2 cc.).

Smith, Kline & French Laboratories, Philadelphia 1

*Trademark for S.K.F.'s brand of chlorpromazine hydrochloride.
Chemically it is 10-(3-dimethylaminopropyl)-2-chlorphenothiazine hydrochloride.

Mrs. Boiler

is a Vitamin Spoiler

Each tiny DAYALET contains:

Vitamin A	10,000 U.S.P. units (synthetic)
Vitamin D	1,000 U.S.P. units (viosterol)
Thiamine Mononitrate	5 mg.
Riboflavin	5 mg.
Nicotinamide	25 mg.
Pyridoxine Hydrochloride	1.5 mg.
Vitamin B_{12}	2 mcg.
Folic Acid	0.1 mg.
Pantothenic Acid	5 mg.
Ascorbic Acid	100 mg.

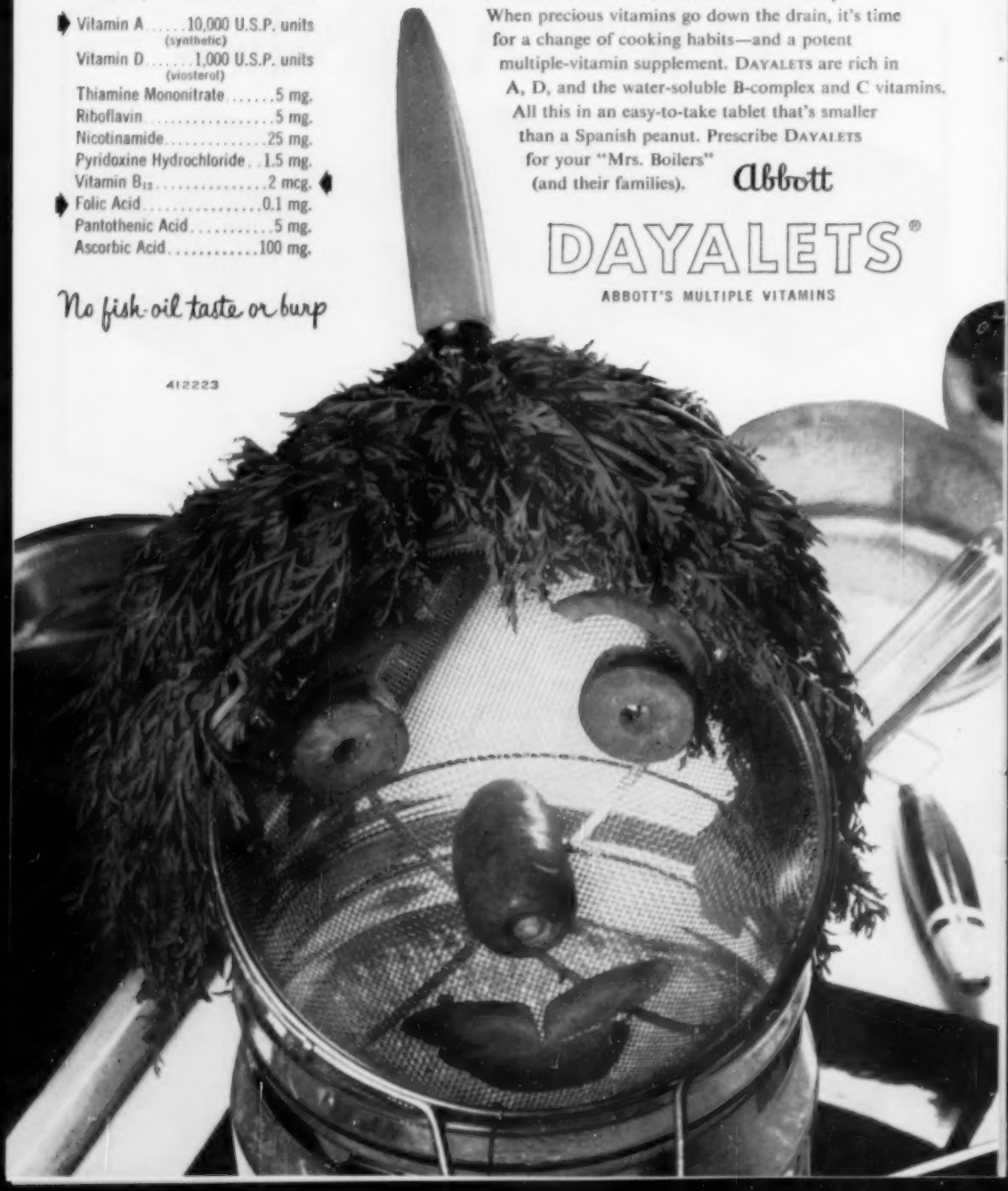
No fish-oil taste or burp

412223

Overcooked meals . . . undernourished family. When precious vitamins go down the drain, it's time for a change of cooking habits—and a potent multiple-vitamin supplement. DAYALETS are rich in A, D, and the water-soluble B-complex and C vitamins. All this in an easy-to-take tablet that's smaller than a Spanish peanut. Prescribe DAYALETS for your "Mrs. Boilers" (and their families). Abbott

DAYALETS®

ABBOTT'S MULTIPLE VITAMINS



Viral and Rickettsial Diseases of the Respiratory Tract

RUFUS S. REEVES, B.S., M.D., F.A.C.P., D.Sc.(Hon.)
Philadelphia, Pennsylvania

This title is an especially important one because it covers the present available knowledge of newer diseases with which the general practitioner should be familiar. That is important because in this antibiotic and chemotherapeutic age some have been tempted to turn to them to relieve patients suffering from pulmonary respiratory diseases rather than using both laboratory and clinical means to establish an accurate diagnosis.

In presenting these diseases the order will be: influenza, lymphocytic choriomeningitis, primary atypical pneumonia, psittacosis, Q fever. It is my intent to cover the etiology, clinical symptoms, diagnosis and treatment. Where known, control measures will be given.

Influenza is an acute, self-limited, infectious disease of man, caused by a virus of the influenza group. Lesions associated with bacteria in the respiratory tract were responsible for the high mortality during the pandemic of 1918-19.

Etiologically, influenza is caused by two viruses of medium size. They are influenza A—discovered in 1933, and influenza B. In the symposium on influenza which the World Health Organization has issued it is stated that A and B virus are antigenically separate and at times both disease producing organisms may be present; major outbreaks can be chiefly ascribed to A. A wide variety of strains of this organism has been studied and the present concept is that a succession of antigenic changes is occurring because over the years one prevalent strain will disappear to be replaced by another that is later supplanted by a third. Whether the capacity for virus A is unlimited has not yet been determined. Hence it is important and necessary to have available a virus laboratory for an accurate diagnosis. Both A and B viruses are recoverable—A from upper respiratory tract and B from throat washings. Accurate information on the morbidity and mortality is difficult because even where the disease is made reportable by

the local public health departments, it is both incomplete and irregular especially in the rural areas.

Clinically we know that the incubation period is one to two days—an abrupt onset. The first and most important symptoms are chills, fever, anorexia, headache, malaise, muscular pains, and aches. In some cases there is nausea, vomiting and diarrhea. The usual constitutional respiratory symptoms of coughing are found and are usually not sputum producing. Increase in pulse rate is usually proportionate to the temperature. The respiratory rate is normal or slightly increased but physical signs are usually indefinite. Some cases show fine rales over the lower lobes posteriorly. Fever may go to 104° or 105° and lasts two or three days. The leukocyte count is usually within normal limits though some very ill cases will reveal a leukopenia. The differential leukocyte count shows a normal pattern. Most cases which have a chest x-ray show no evidence of pneumonia. Complications are rare.

The diagnosis is usually not difficult. One must always distinguish influenza from the common cold, primary atypical pneumonia, paranasal sinusitis, abortive measles, dengue and lymphocytic choriomeningitis.

Symptomatic and supportive treatment identical to that employed in undifferentiated, acute upper respiratory infections, or in other illnesses with similar symptoms, gives some relief. Specifically, I employ Dover's Powder, aspirin and quinine sulfate. Both the antibiotics and sulfonamide drugs are useless in uncomplicated influenza.

From the public health viewpoint, the subject is well covered in "Use of Antibiotics in non-bacterial respiratory infections." However, in the major complication of a bacterial pneumonia intramuscular procaine penicillin 300,000 units initially followed by 100,000 units daily or oral penicillin 300,000 units each day or Ilotycin 200 mgms. every six hours should be used provided one knows either that the patient has previously been given penicillin without untoward side effects or in the absence of that information a subcutaneous bedside test has proven negative. One is encouraged by the efficacy of vaccines containing both viruses as prophylactic agents against influenza. In the fall of 1953 the Surgeon General of the United States Army stated, "Experience during the 1952-1953 respiratory season as in other years, demonstrated that effective use of influenza vaccine results only when it is administered prior to the onset of epidemics." Hence, anti-influenza vaccine was given to troops in the Far East, Europe and Alaska last November. It is given in one dose—intramuscularly, one cc. containing A, A prime and B. During epidemics of influenza A the incidence of the disease was found to be 70-80% lower than in the unvaccinated cases in 1945. The following year during the B epidemic, the attack rate was about 90% lower than in the unvaccinated persons. These figures were developed by the Commission on Influenza in 1944. Estimates of increased resistance following vaccination vary between two and twelve months.

Lymphocytic Choriomeningitis is an endemic viral infection of lower animals, especially the mouse, in which, as the name signifies, the central nervous system and particularly the meninges and choroid plexuses are involved. It is transmissible to man, in whom the infection produces a marked

diversity of signs and symptoms.

Etiologically the diameter of the virus is from 40 to 60 millimicrons as determined by filtration through gradocol membranes. It passes through Berkfeld V, N and W candles, and Seitz filters. The presence of a specific soluble substance from the active virus in the organs — chiefly spleens — of infected guinea pigs and mice has been shown. Complement-fixing and neutralizing antibodies appear in the serum of convalescent human beings.

Clinically several forms are seen such as aseptic meningitis, grippe, meningo-encephalo-myelitis, and acute fatal systemic disease. After an unknown period of incubation, we see a sudden onset, frequently with the well-known picture of influenza as mentioned previously. In many cases recovery ensues promptly. In others, the grippal phase is followed by definite signs of meningitis which may endure for about two weeks with complete recovery the rule. During the febrile period virus is found in the blood, urine, cerebrospinal fluid, and nasopharyngeal secretions. In the other neurologic or systemic forms, which are seen occasionally, fortunately, for they are sometimes fatal, the disease presents the syndrome referable to the extent and location in the central nervous system and other organs. The virus can be recovered from the central nervous system or lungs of patients dying from the disease.

During the acute phase the laboratory reports show in the blood count a mild polymorphonuclear leukocytosis while the cerebrospinal fluid is under slightly increased pressure. Protein is slightly increased but blood sugar is normal. Pleocytosis occurs with the usual counts of 150-250 lymphocytes per cubic millimeter. Higher counts have been reported.

The diagnosis is made by the isolation and identification of the virus and by serologic tests. The fact that the blood and cerebrospinal fluid reveal the active agent in patients, plus the clinical picture given clinches the diagnosis.

Unfortunately, there is no specific treatment. The sulfonamide compounds influence neither the virus nor the experimental disease induced by it. Whether tetracycline will affect the virus has not been determined by the research workers.

In public health an important measure for controlling the disease is to eliminate mouse or other animal carriers of the virus from human habitation. A patient's urine should be disinfected since it may contain the virus.

Primary Atypical Pneumonia is synonymous with virus pneumonia, acute pneumonitis, acute interstitial pneumonitis and atypical bronchopneumonia. It is an acute, infectious, self-limited disease of man. Its chief manifestations are the result of an infection of the respiratory tract with pulmonary consolidation of varying degree present. The viral and rickettsial diseases mentioned in this presentation may closely simulate this disease. This disease differs from pneumococcal pneumonia in that its onset and course are milder and practically all patients get better even without specific treatments.

Etiologically it must be stated that despite many attempts to recover the infectious agent or agents there is not yet complete agreement among investigators as to the nature and identity of the causal agent. It may be said that bacterial species of established pathogenicity for man appear not to play an im-

portant etiologic role. The condition is similar to certain forms of pneumonia which result from infection with viruses or rickettsiae of established identity as mentioned above. Present evidence indicates that the serologic reactions obtained with the micro-organisms are caused by specific antibodies.

Epidemiologically we can say that the disease is of widespread prevalence. It is usually endemic, though small epidemics have been described. The outbreaks have occurred among persons living under crowded or semi-crowded conditions such as school dormitories or military camps. It occurs more commonly in the north temperature zone. Sex, age, color or race differences in incidence are not marked. The infection is not very contagious but apparently it can be directly transmitted from one person to another. Among physicians, nurses and hospital personnel the incidence has been considerably higher than among persons not closely associated with patients.

From the clinical viewpoint we see a gradual, ill-defined onset, with lassitude, fatigue and weakness. Then follow headache, chilliness, fever and symptoms referable to both the upper and lower respiratory tract—most uncomfortable is the sufferer from chronic sinusitis. Cough is generally a prominent symptom with muco-purulent sputum but no blood. Some cases show moist rales in the absence of signs of true consolidation. Fluoroscope and x-ray reveal a greater amount of pulmonary infiltration than is suspected or found. The total leukocyte count and differential ratio are usually within normal limits. Pulse and respiratory rates are low—especially the pulse rate with relationship to the temperature. The duration of the illness is two to three weeks—during which time the patient is prone to have a 99° temperature for the first few days following the acute disease, perspires easily and is subject to fatigue on very slight activity.

The diagnosis of Primary Atypical Pneumonia rests upon the following:

1. Gradual onset with unproductive cough, fever, headache, malaise, chilly sensations and occasional substernal pains or pains posteriorly. The absence of initial chill, bloody sputum and abrupt chill differentiates it from pneumococcic pneumonia.
2. Physical examination often revealing minimal signs in the chest which are out of proportion to the evidence of pulmonary consolidation.
3. Laboratory examinations usually show a low or normal leukocyte count. Pneumococci or other pathologic organisms are frequently not isolated from the sputum, throat, or naso-pharyngeal cultures or by mouse inoculations.
4. Serologic studies on serial serum specimens do not show the development of viral or rickettsial agents.
5. Treatment with sulfadiazine or penicillin is not associated with the clinical or subjective improvement in the uncomplicated case.
6. Serological studies reveal cold hemagglutinins in the serum of patients for human group O cells.

Generally penicillin and the sulfonamides have been found to have no effect on the course of the infection. In cases where the diagnosis is in doubt, however, it is advisable to administer penicillin after the diagnostic procedures

have been carried out. The lack of a definite response after seventy-two hours is the usual indication to discontinue the drug unless a bacterial etiology has been established. There are few reports on the use of streptomycin in the treatment of primary atypical pneumonia although this antibiotic is thought to have no effect on the course of the disease. Aureomycin has been beneficial in some cases while recently the use of tetracycline in this disease and certain viruses and rickettsial infections has proven of value. It appears to be more stable and may have some other favorable pharmacologic properties, one of which is that of reaching the cerebrospinal fluid in normal human beings. The major clinical difference between tetracycline and Terramycin and Aureomycin is the distinctly lower incidence of untoward gastro-intestinal symptoms from tetracycline. These results suggest that further clinical trials with tetracycline are warranted.

In discussing tetracycline in a recent editorial, Flippin states, "although it is too soon to know what role this new antibiotic will play, it may be that as a result of an apparent incidence of gastro-intestinal complications, tetracycline may replace Terramycin and Aureomycin for general use." He feels that the present situation in the antibiotic field—with special reference to the tetracycline group, is analogous to that which existed in the sulfonamide field following the observation to that which existed in the field following the observation that sulfanilimide was the essential chemotherapeutic ingredient of penitosil.

Psittacosis, although an avian infection, is communicable to man. Its synonyms are parrot fever or ornithosis. It may be a severe illness with a high mortality affecting all ages and sexes or a mild subclinical infection. It is caused by an elementary-body virus which develops in the reticulo-endothelial cells.

It is important to know that virus in droppings of sick birds causes psittacosis in immature birds. Furthermore, love birds or parrakeets which have been proved free from the disease are susceptible to intramuscular, intranasal and intracerebral infection.

Epidemiologically we know that observations made in the past fifteen years —one of the greatest and most reliable authorities being Dr. Karl F. Meyer, Former Director of the Hooper Foundation at the University of California— attest the wide distribution of psittacosis among birds. Of great significance was the discovery that visibly healthy birds harbor the virus and as shedders, distribute the infective agent. There have been epidemics during the winter months probably because of prolonged exposure of persons to infected avian pets in closed rooms of a winter household. Occupational psittacosis is quite common in persons engaged in handling psittacine birds, pigeons and ducks. The disease is transmitted by air, handling sick or dead birds, or having contact with feathers, excreta or nasal discharge of sick or infected birds and through bite wounds.

Control measures include rigorous isolation of all cases during the febrile stage of psittacosis; it should be reported to the health department. The birds should be examined and all bird stores, aviaries and pigeon lofts quarantined until the suspected birds have been destroyed and the premises thoroughly cleaned. Public education is essential in the control of this disease.

Clinically we see the same sudden onset and symptoms mentioned in influenza and atypical pneumonia. The fever at the onset is usually 100°-102°F. and gradually rises. It falls by lysis. Nose bleed occurs in twenty-five percent of the cases. There is an irritating dry cough usually—later, some cases have muco-purulent cough. Crepitations may be heard by the fifth day. X-ray shows patches in both lungs. The pulse is slow and blood pressure is low. Some cases show nausea and vomiting and either constipation or diarrhea. Albuminuria has been seen. Leukopenia is seen in only twenty-five percent of the cases while leukocytosis occurs late in the disease or early convalescence.

The diagnosis should be made on the basis of history of association with birds and isolation of the virus from mice which have been inoculated with citrated blood or sputum. The virus has been found in the blood of these patients and vomitus and throat washings in the first two weeks of the disease.

Treatment of psittacosis begins with isolation. Since 1930 serum of convalescents has been used to combat the disease. The evaluation of this treatment is difficult because the neutralizing antibodies are rarely present in the serum which exerts no curative effect on experimentally infected animals. Sulfadiazine is effective against two classical psittacosis strains. Experimental psittacosis responds to treatment with penicillin when 100,000 units of aqueous penicillin G has been administered intramuscularly every three hours for a minimum of ten days. Aureomycin .5 gram every six hours is very effective.

Q Fever is acute febrile disease caused by *Rickettsia Burneti*. The latter is a small obligate, intracellular, parasitic microorganism. It is isolated from the blood of patients during the febrile stage and from the sputum, spinal fluid or urine without difficulty. Guinea pigs and mice are commonly employed for this purpose.

Clinically, following an incubation period of from fourteen to twenty-six days the patient suddenly is stricken with headache, myalgia, fever from 101° to 104°F, chilly sensations and loss of appetite. In addition, some cases have symptoms referable to the respiratory tract, while others have the gastro-intestinal symptoms predominating. Usually about the fifth or sixth day a dry cough develops and the patient complains of pain the chest. X-ray will reveal changes generally considered to be indistinguishable from the chest of the primary atypical pneumonia. The fever lasts from six to ten days. Complications are rare but these patients—especially the sicker ones—are really prostrated for several weeks. The usual clinical laboratory tests are of little diagnostic assistance. Total leukocyte and differential counts are essentially normal but the erythrocyte sedimentation rate may be moderately elevated. As stated earlier, the *Rickettsia Burneti* is isolated during the febrile period from the blood, urine and spinal fluid without difficulty. It occurred in epidemic form in our troops in Italy in 1944 and 1945.

The corollary to the latter statement is that the diagnosis of Q Fever in man is established by the isolation of the etiologic agent. Q fever may resemble the early stage of many acute febrile diseases such as influenza, meningitis, brucellosis, typhoid and paratyphoid fever, malaria, dengue, infectious hepa-

titis and other rickettsial diseases.

From an epidemiologic viewpoint, Q Fever in both Australia and the United States is essentially occupational, being limited almost entirely to slaughterhouse workers and laboratory personnel. Wild animals transmit it by ticks which are capable of infecting cattle, which develop mild illness. Meyer's experiments on bloodsucking anthropods to ascertain whether or not they were potential hosts of *Rickettsia Burneti* and thus might become vectors of Q Fever show that ticks, body lice, fleas, bedbugs and larvae of meal worms all proved more or less susceptible when experimentally infected. Furthermore, cattle ticks become infected by feeding on such cattle and their feces may contaminate the hides. Contaminated air is an important method of transmission, whether by dust or droplet infection.

In the light of our present knowledge, treatment is limited to supportive therapy including a light diet reasonably high in both carbohydrate and protein, as neither penicillin nor the sulfonamides nor streptomycin have proven of any value in Q Fever. However, Aureomycin, Terramycin and Chloromycetin control the infection in about 70% of the cases. Recently, some satisfactory results have been found experimentally in the treatment of this disease with immune serum.

Summary

In this newer and interesting field of medicine there is a great similarity of symptoms.

The diagnosis can be made accurately by comparatively simple laboratory studies which have been suggested. For some cases a virus laboratory should be available.

In this age of antibiotics it has been shown that they are not effective in all of the diseases of the respiratory tract.

That the future and more effective treatment will be brought out by research workers is indicated by the reports now available on the tetracyclines.

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B214 Presidential Apartments

Complications of Myocardial Infarction

LOUIS FAUGERES BISHOP, M.D., F.A.C.P.
New York, New York

The clinical picture of myocardial infarction in its classical and unusual forms is now well known, and is usually recognized and properly treated. The complications of most importance are:—1. Shock, 2. Cardiac Arrhythmias, 3. Embolism, 4. Cardiac Failure, 5. Ventricular Aneurysm, 6. Ventricular Rupture, 7. Septal Perforation, 8. Rupture of a Papillary Muscle, and 9. Shoulder-Hand Syndrome.

Christian has so well stated: " Some patients will die whatever you do because the heart is mortally wounded with the first block that occurs in the coronary vessels. Others have but a small area of muscle involved and will almost surely recover. Between the extremes lies a group in which much depends upon the physician in charge who errs either on the one side of doing too much or too little, or may hit the happy middle course—of just the proper therapeutics."

After the diagnosis of myocardial infarction is made, it is the responsibility of the physician to be familiar with its course and complications.

1. Shock The first complication to be considered is shock. Myocardial infarction is frequently accompanied or followed by a shock-like state in which the patient appears pale and anxious, the skin is moist and clammy, the pulse rapid and thready, and the blood pressure low or unobtainable. It is very important not to make the diagnosis of the presence of shock on blood pressure readings alone. Some patients may have low blood pressure temporarily with no untoward effects; while others, particularly hypertensive patients, may be in a state of shock with a blood pressure considered to be within normal limits. Hypotension must be watched carefully as it may portend frank shock.

Shock is a very serious complication of myocardial infarction. It occurs in about 15.0 per cent of cases, and of these, seven out of ten patients die; this is contrasted to a death rate of perhaps three out of ten myocardial infarcts in which shock does not appear. Why 15.0 per cent of these patients develop shock, and why 85.0 per cent do not, is unknown. Furthermore, why in 30.0 per cent of these shock cases a gradual recovery ensues is not known. It is not due to the efforts of the physician, for the treatment of shock following myocardial infarction has ranged all the way from letting blood out to putting blood into the patient; neither of these two extremes is known at the

moment to be either correct or incorrect.

Some idea of the confused role of therapy may be gained from the foregoing:—If early shock which progresses to death is initiated by a peripheral mechanism leading to a decreased circulating blood volume and continued by left ventricular failure due to the myocardial effects of prolonged hypotension, then the treatment seems clear. Vasomotor paralysis and decreased circulating blood volume would seem to call for infusion of blood, plasma, or pressor substances. The use of vasopressor drugs has greatly improved the prognosis of shock accompanying myocardial infarction.

2. Cardiac Arrhythmias The cardiac irregularities which frequently follow myocardial infarction have always interested the clinician because the correct management of these arrhythmias may constitute the difference between the successful or unsuccessful outcome.

Auricular fibrillation is usually transitory and benign. Ordinarily, paroxysms of auricular fibrillation in the course of cardiac infarction subside spontaneously after several hours, and therefore require no treatment. If the auricular fibrillation persists, then the mortality rate is increased.

The ventricular arrhythmias are of great importance, as proper management may be life-saving. There are now two drugs that are of particular use in the management of such arrhythmias. The first is quinidine, which has been available for a long time, and the second, more recently available, is procaine amide (Pronestyl).

Currently, there are a number of controversial points as to the use of quinidine in the treatment of the cardiac arrhythmias following myocardial infarction. Many authors advocate that quinidine, used prophylactically in doses of three grains every four to six hours during the first few weeks of acute myocardial infarction, may prevent ventricular tachycardia. Of course if this were true, it would tend to reduce mortality following myocardial infarction. It is the custom of many doctors to use quinidine for this purpose. It is the author's feeling that there is no sound basis to justify the routine use of quinidine for the purpose of preventing arrhythmias. In the event that these arrhythmias do occur, the value of the drug is great. The prophylactic use of quinidine must be weighed against its possible dangers. Occasionally, there is an unusual sensitivity to quinidine. Although the undesirable effects of quinidine can be watched since the use of serial electrocardiograms, it seems unwarranted to use the drug routinely in the care of such patients.

Ventricular premature beats often occur following myocardial infarction. Since they often herald ventricular tachycardia or fibrillation, there is a definite rationale in the use of quinidine or Pronestyl to suppress an ectopic focus.

In paroxysmal ventricular tachycardia, procaine amide (Pronestyl) has proved its efficacy. Unless this arrhythmia is stopped, the prognosis may be very grave. In the use of Pronestyl the author found no untoward effect from its slow, intravenous use although the blood pressure and the electrocardiogram must be watched carefully.

3. Embolism There has been much discussion about the embolic complications in myocardial infarction since the advent of anticoagulant therapy. Emboli

constitute one of the most dreaded complications of myocardial infarction. We are mainly concerned with the threat of emboli, and with adequate prophylaxis.

Concerning origin, mural thrombi may be located in the left ventricle or on the septum in the right ventricle. The thrombi located in the left side of the heart give rise to peripheral emboli including those in the brain, spleen, and kidneys. The right-sided thrombi may give rise to pulmonary infarctions although the majority of pulmonary emboli come from the veins of the pelvis and lower extremities. Even though the primary concern is the prevention of this complication, there is a marked difference in opinion regarding the *routine* use of anticoagulant therapy. Following the report of the combined study of the American Heart Association in 1948, it was concluded that patients treated with anticoagulant therapy, in addition to the conventional forms of therapy, experienced a death rate and incidence of thrombo-embolic complications during the first six weeks following an attack, which are materially lower than those experienced by patients treated solely by conventional methods. It was first considered from this study that there was little doubt that anticoagulant therapy should be used in all cases of myocardial infarction unless a definite contraindication should exist.

Since this original study it has been critically questioned whether or not anticoagulant therapy should be used in all cases of myocardial infarction, or should be limited to the more serious cases of acute myocardial infarction. For the so-called "good risk" patient with acute myocardial infarction treated without anticoagulants, the mortality rate and incidence of thromboembolism are low; in these cases the possible benefit from anticoagulants is limited. It would appear from recent studies that to determine whether Dicumarol should be administered to all patients with myocardial infarction, proof must be obtained that even in less severe cases the preventable mortality exceeds the incidence of complications and deaths attributable to the drug.

4. Cardiac Failure It is important not to confuse congestive failure with shock. Both may be present in the same patient. In cardiac failure which may follow myocardial infarction one must be concerned with the degree of failure involved.

Following the initial attack, it is common to see a very mild degree of left ventricular failure which resolves without treatment, and consists clinically, in noting a few basal râles. This is not always the case, and not infrequently acute left ventricular failure occurs where emergency treatment for pulmonary edema is indicated.

More often, the complication of congestive failure develops weeks or months after the occurrence of the attack and is characterized by the usual symptoms of left ventricular failure. It is also not uncommon to see evidence of right ventricular failure occurring after the acute symptoms of myocardial infarction have subsided.

There has always been some controversial opinion regarding the management of failure following myocardial infarction. This controversy has centered in general around the use of digitalis. Current opinion is that digitalis is useful in the treatment of heart failure following myocardial infarction. This is true despite numerous published ob-

jections to its use. Such objections center around the fact that digitalis increases the force of cardiac contraction. Therefore, rupture of the weak infarcted muscle, or dislodging a mural thrombus, were feared. The second objection is that the ischemic myocardium is hyperirritable following myocardial infarction, and this increased irritability may be a factor in producing ventricular tachycardia or ventricular fibrillation. And a final objection is that digitalis may cause constriction of the coronary arteries. Some of these objections have been based upon experiments on animals. All may be met with opposing arguments, and in practice digitalis is as useful in the treatment of heart failure following myocardial infarction as in heart failure due to any other etiology.

In the treatment of cardiac failure following myocardial infarction with digitalis, it is generally agreed that the dosage should not be too large. The patient can usually be digitalized slowly when there is no emergency. Toxicity is then more easily avoided because it is easy to stop short of excessive dosage. The important guide to the use of digitalis is the clinical response of the patient. Satisfactory therapeutic response is similar in congestive failure following myocardial infarction to congestive failure from any cause. It is indicated by the relief of dyspnea, orthopnea, cardiac asthma, by diuresis and loss of edema, a diminution in the venous pressure, and decreased circulation time. In the unusual situation of acute fulminating failure following myocardial infarction, the drug of choice would appear a quick-acting intravenous digitalis preparation if the physician is familiar with its use and contraindications.

In addition all the other usual methods of treatment of heart failure should be utilized, including sedation, mercurial diuretics, low salt diet, and oxygen.

5. Ventricular Aneurysm Ventricular aneurysm is an interesting pathological sequela which is usually due to myocardial infarction. The site of the aneurysm corresponds to the usual sites of the infarcts: at the apex and anterior wall of the left ventricle, or at the base and posterior wall. There are no characteristic symptoms.

The diagnosis is usually made by roentgenological examination, but may be suspected from the electrocardiographic pattern. Persistent S-T elevations and T wave charges in the precordial leads, or a large S_2 and S_3 in the standard limb leads, suggest the diagnosis when combined with the pattern of a previous infarction.

6. Ventricular Rupture Ventricular rupture is one of the more common causes of death early in the course of acute myocardial infarction. This interesting condition has been known for nearly three centuries, but has come into prominence with better understanding of myocardial infarction. In the experience of any one individual doctor it is usually a rare occurrence, and yet if one consults statistics the incidence has been given as high as 9.0 per cent. In a large hospital with 120 cardiac beds, it occurred but once during the past year.

It is now claimed there are several important factors contributing to myocardial rupture, for example, the extent and location of the infarct plus the amount of undermining and dissection of necrotic myocardium. There should be concern when hypertension persists

after the shock of myocardial infarction because cardiac rupture is more apt to occur in the face of continued hypertension; this may be the only sign of impending disaster.

Rupture of the heart usually occurs early in the course of infarction when there are no histological signs of healing and only evidence of heart muscle necrosis.

7. Septal Perforation This is an uncommon complication of myocardial infarction. The condition is diagnosed by the sudden appearance of a loud systolic murmur in the fourth or fifth interspace along the left sternal border, and is usually accompanied by a thrill. The signs of congestive failure may soon appear. Although this complication has serious prognostic importance, the patient may survive for several years.

8. Papillary Muscle Rupture Rupture of a papillary muscle is quite rare. If a "loud, whistling, to-and-fro" systolic murmur appears at the apex, the diagnosis can be suspected.

9. Shoulder-Hand Syndrome Among the most interesting and not very uncommon complications of myocardial infarction is the so-called shoulder-hand syndrome. In its severe form it is easily diagnosed, but in its milder form can go unrecognized.

The painful shoulder-hand syndrome is coincident with, or occurs following, myocardial infarction. In its more classical form, it resembles an acute, or subacute, periarthritis of one or both shoulders, usually followed in days or weeks by stiffness, pain, and swelling of one hand or both hands. The onset of pain in the shoulder may coincide with the occlusion or may develop weeks or months later.

After a few days or weeks, there appears a mild unilateral or bilateral pain in the hands, with stiffness and inability to close the hands. The hand condition may become very marked, the hand even being fixed in extension. In others, the condition may not be mentioned by the patient unless directly questioned.

The clinical course of the more severe forms of the hand and shoulder pain may persist for months. The shoulder is first to improve and the hand last. Other joints may be involved.

Treatment consists of analgesics and physiotherapy. X-ray and diathermy have been used. Stellate ganglion block is reportedly efficacious.

Summary

The complications of myocardial infarction are common. The patient should be carefully watched with these in mind, the diagnosis definitely established, and modern available treatment utilized.

116 East 53rd Street

Presacral Tumors

Case Report and Review of the Literature

H. B. BENJAMIN, M.D.
MARVIN WAGNER, M.D.
JAMES FULTON, M.D.
ROBERT HAUKOHL, M.D.
Milwaukee, Wisconsin

The causative factors of tumor and defects which occur in the ano-sacro coccygeal area, can better be understood if one considers the embryological development in this area. The important changes which occur are the development and subsequent disappearance of the notochord, proctodeum, hindgut, and the neurenteric canal. In considering the neurenteric canal (Fig. 1), we find there is controversy as to whether or not it exists in the human. There is constantly present a short narrow canal in the lower vertebrates, connecting the lower end of the medullary groove with the hindgut. Regardless of the controversy, it has been considered as the possible source of certain tumors of the ventral side of the coccyx, especially cysts lined by intestinal wall with portions of nervous tissue. This type of tumor is often observed in infants.

Up to the third month the spinal cord reaches to the third coccygeal vertebra, beyond which it is continued to the tip of the coccyx and overlying skin as a fibrous cord containing groups of epithelial cells; up to the fifth month or later there is further growth of cells of this structure, producing irregular spaces lined by polyhedral or pavement cells. Another consideration is the fovea coccygea, which is the coccygeal vestige of the neural canal. (Fig. 2). The later development of the soft parts about the anus, and the gradual atrophy of the remnant of the cord often produces a superficial depression over the coccyx—"Fovea coccygea." These coccygeal vestiges suffer a progressive atrophy. However, if they do persist they may give rise to sinuses, complex tumors, or dermoid cysts.

The cloacal membrane in its "absorption," or the multiple stages in the union of the anus with the intestinal tract (Fig. 3), are all concerned with possible tumor formation of these organs and may lead to formation of cysts lined by epidermis or by cylindrical or mucus cells. Most commonly the dermoid cyst occurs.

The proctodeal portion of the anal canal formed by an invagination of the ectoderm, does not meet the lower end

From the Departments of Anatomy and Pathology, Marquette University, School of Medicine and Evangelical Deaconess Hospital, Milwaukee, Wisconsin.

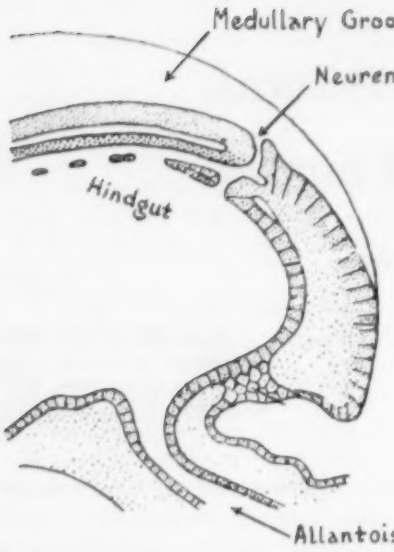

Fig. 1. Median sagittal section through caudal end of Bremer's embryo. Note position of neurenteric canal.

of the intestine, but joins the intestinal wall at some distance anterior to its extremity. The terminal portion of the intestine, lying on the ventral side of the coccyx, becomes closed and atrophic and this embryonal remnant appears to be connected with many tumors lying between the coccyx and rectum. Middeldorf in 1885 first reported a presacral tumor in a child. The tissue consisted primarily of intestines and fat. Other tumors reported were those that contained intestinal wall and mucosa; and several describe tumors of intestinal wall which manifested spontaneous or electrically excited peristaltic movements.

According to Ewing the majority of tumors which occur are more complex and involve more than one of the embryonal remnants. The sacro-coccygeal teratoid tumors are a heterogeneous group in which the three germ layers are represented. These tumors are congenital, solid or cystic, lying at the lower end of the spinal column in front of the sacrococcygeal spine. These masses may extend to the perineum, displacing the anus ventrally. They may project over the dorsal surface of the coccyx, and occasionally have definite connections with bones. These tumors in their solid parts contain cellular connective tissue, fat, striated or smooth muscle, bone or cartilage. If central nervous system tissue is present it usually is glial histologically or ganglia. When cystic it usually is lined by cuboidal or cylindrical ciliated epithelium, or pavement cells. True dermoids are ectodermal in origin and are lined with epithelium which is constantly secreting and desquamating. Such cysts are filled with sebaceous material and may contain ectodermal derivatives. Sacral teratomas also occur, and are usually present at birth lying on the dorsal surface of the sacrum and coccyx, and adherent to or enclosed within the periosteum or connected to the bone by a pedicle. Others lie anterior to the sacrum and are connected to this bone or to the rectum. These may have structures similar to the teratoid tumors.

Some patients live with these presacral tumors through their life without cognizance of their presence, becoming aware of them only after an incidental finding on a routine physical examination. This was the case with our patient. Others, however, complain

of an indefinite dull ache or pain in the lower segment of the back or pelvis. If sciatic nerve encroachment occurs, the patient may complain of pain in the legs and in the more severe cases rectal or urinary incontinence occurs. Some patients have been reported as having chronic draining perirectal sinuses, proved later to be actually incised dermoids. In diagnosis, our recommendation of routine digital examination of the rectum would prove most valuable. In the differential diagnosis the following are some of the more common lesions to be considered: rectal fistulae, spinal cord tumors, tumors of the cauda equina, anterior spina bifida with meningocele chordomata, pelvic tumors including adenomyomata, ovarian cysts, fibromyomata, and sacrotomata. The most satisfactory treatment is surgical excision through a Kraske, posterior approach. As is noted in our report follow-up radiation treatment is indicated for cases where removal of the entire tumor is impossible.

Mrs. G.A.V., 31 years old, who was admitted to Evangelical Deaconess Hospital on October 15, 1953. Her history revealed that in September 1953, the patient had a routine physical examination and on pelvic and rectal examination a retro-rectal mass was noted. The review of systems and family history were non contributory. Her past medical history revealed that the patient had an appendectomy in 1941. Her catamenia revealed that she was nulliparous and her menstrual cycle was irregular. The pelvic organs were normal on bimanual examination. Rectal examination revealed a non tender, cystic mass, the size of a golf ball in the retrorectal space, anterior to the sacrum. A complete laboratory profile was within normal range. The preoperative diagnosis was a presacral or coccygeal benign teratoma. The patient was taken

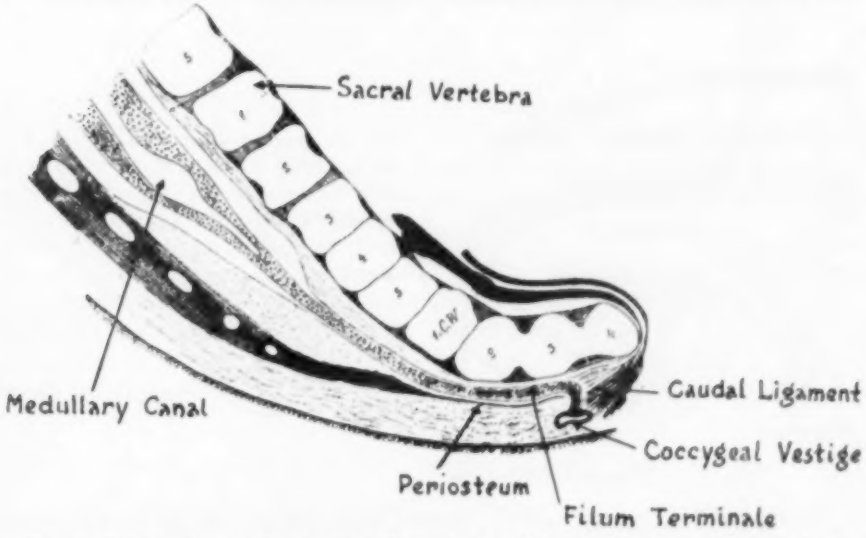

Fig. 2. Schematic median section through caudal end of a human fetus 11 cm. long (after Unger and Brugsch). Note vestiges of distal end of medullary canal left near tip of coccyx and "caudal ligament". (after Kiebel and Mall)

to surgery and the following was noted:

Operative Report Through an incision over the sacrum and coccyx, the retrorectal space was entered after resection of the coccyx and terminal sacrum. A large encapsulated loculated tumor mass was found. This was dissected free from the rectum with great difficulty and was delivered from the retrorectal space. Opening the structure it was found to contain 500 cc. of purulent material. The rectum was inspected and found to be intact. The bleeding of the resected terminal sacrum was controlled. A dressing was applied.

The pathologist reported:

Gross Examination The specimen consists of a mass of fibrous and fatty tissue measuring 7 x 3.5 x 3.5 cm. The external surface is generally tan in color and very ragged. On section it is revealed to be a thick walled, multi loculated cyst. The wall measured 0.8 cm. in thickness. The cyst is filled with thick purulent material. The lining is rough and white in color. Additional sectioning displayed a second cavity which had opaque gray or white walls. At one point, tissue could not be sectioned because of calcification of wall.

Microscopic Examination The walls contain fibrous stroma enmeshing numerous pieces of not remarkably altered smooth muscle. The cysts are lined in part internally by either well differentiated stratified squamous epithelium or by pseudo-stratified ciliated respiratory type columnar epithelium. The subepithelial tissues are infiltrated by many lymphocytes. Cartilage and bone are not found histologically but may be presumed to be present because of marked calcification demonstrated grossly. In several sections of the cyst lining, the epithelium appears to have been completely destroyed and replaced by a large number of mononuclear phagocytes with foamy cytoplasm.

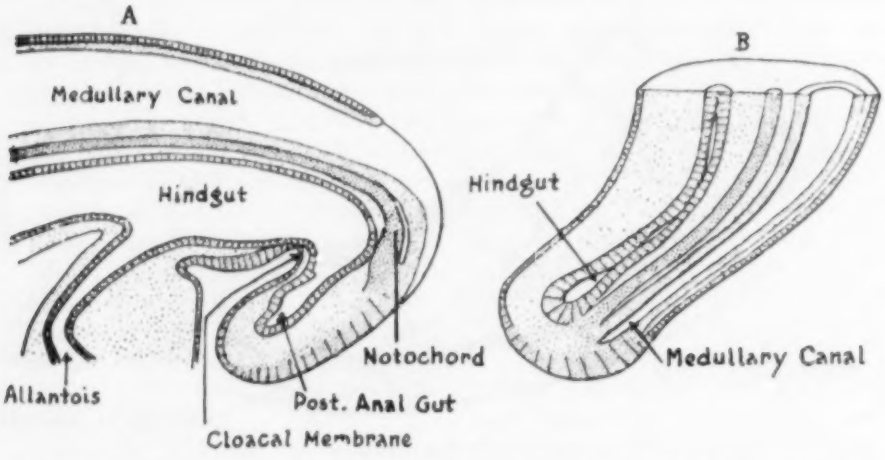

Fig. 3. Median sagittal section Bremer's 4mm embryo (A); Distal segment the tail of a 7.5 cm embryo. Note that the anus will be formed by absorption of cloacal membrane anterior to the distal end of the gut, leaving post-anal gut to be obliterated.

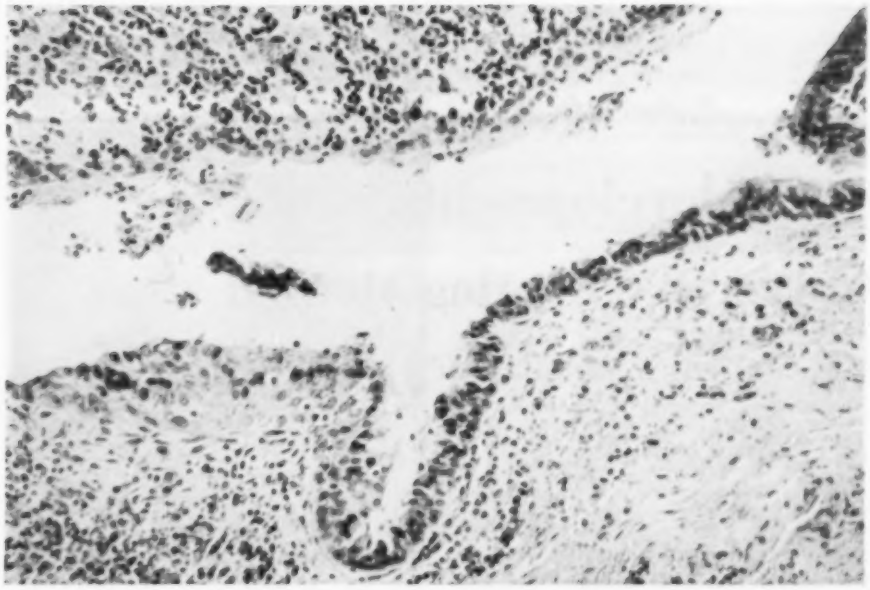

Fig. 4. Microscopic appearance of resected tumor.

Diagnosis Benign Teratoma.

The patient had an uneventful recovery, and eight months later consummated a normal pregnancy.

Summary

This paper is a review of the literature in regard to tumors existing anterior to the sacrum, with emphasis on the importance of the embryological back-ground of these tumors. We further wish to stress how important it is that every complete physical examination include digital examination of the anus and rectum. As we noted in our text, not only in our case but in quoted cases, in the literature, these tumors were made cognizant to the patient after "digitilization" of the patient was made.

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561 North Fifteenth Street

Recent Techniques and Developments of the Corrective Planing Method For Scars

IRWIN I. LUBOWE, M.D., F.A.C.A.*
New York, New York

Removal of scars of the cutaneous tissue has been attempted by many modalities. Scarring of the skin follows frequently as a residual manifestation of acne, chicken pox, small pox, pyoderma, and traumatic injuries. Since granulation tissue and fibrosis usually occurs in the dermis, or middle layer of the skin, following the above mentioned diseases, it is extremely difficult to treat or correct this area by simple chemical or physical methods.

The use of the carbon dioxide slush-acetone method was introduced by Eller,[2] and has been utilized both as a therapeutic measure in the treatment of active acne vulgaris and also to reduce scars. The therapeutic action of this slush is believed to be that of a counter-irritant and a refrigerant agent; however, its effectiveness is temporary and has not been definitely established.

Other popular topical measures have been introduced to level the margins of existing scars in an attempt to reduce the uneven edges to a flat, smooth surface. The applications of liquid phenol,[11] trichloracetic acid, and silver nitrate to the scar edge are other accepted methods. Peeling of the skin with resorcin paste causes an exfoliation of the epidermal layers. There is discomfort and burning observed at the site of application, and occasional serious sequelae result because of absorption of resorcin causing constitutional effect.

Hartman[8] has suggested planing down the rough and irregular edges of scars by means of a mild desiccation current.

Attempts to diminish the conspicuousness of port wine nevi by means of tattooing in these affected areas have been essayed, prescribed, and met with considerable success.

Strakosch[7] described the treatment of three cases of tattoos of the forearm which were successfully treated by abrasion with sandpaper. He also advised the use of sandpaper planing in the removal of generalized freckles with cos-

* Associate Visiting Dermatologist, Metropolitan Hospital, New York. Assistant Visiting Dermatologist, New York University-Bellevue Medical Center, New York. Assistant Visiting Dermatologist, Flower and Fifth Avenue Hospitals, New York.

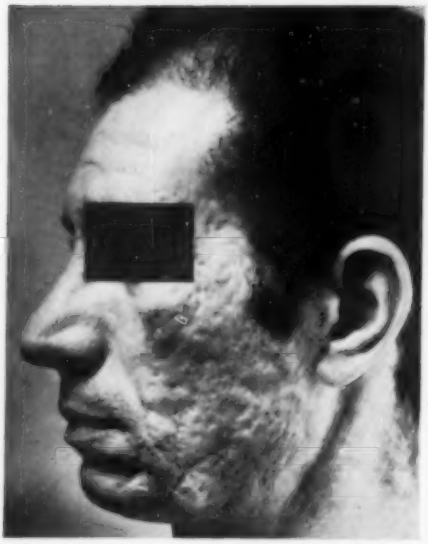

Fig. 1. Case No. 1. Photograph taken 9-1-53. J. P. Severe acne condition, left side of face, 15 years duration.

metically satisfactory results.

More recently, Iverson[3,4] and McEvitt[5] have demonstrated the effective use of sandpapering of the skin. They have recommended the procedure which is performed under general anesthesia to avoid the severe pain which would be experienced by the patient. Its applicability has been suggested in the reduction of acne scars, removal of tattoos, lightening of the color of the port wine nevi, and diminution of keloidal scars, and nevi.

Kromayer[9] suggested the removal of pitted scars, discolorations, and verrucous growths by means of a burr which was revolved by current generated by a motor. In 1933[10] he suggested the use of a frase following the use of ethyl chloride topically. The frase was a metal burr which caused the removal of the scarred, diseased tissue by grinding or abrasing the area. It was tried for many years, and then discarded by dermatologists.

Reiss[14] describes in detail the method suggested by Kromayer and states that he has been continuing to use this method in his practice. He prefers the burrs for nevi, seborrheic verruca, and small acne pits.

Kurtin[6] reintroduced and revised the Kromayer method of planing of the skin by means of a motor driven stainless steel wire brush of various diameters. The diameters of these popular brushes are from 2 mm to 14 mm. The wire brush is connected to a motor. The speed of the revolutions of the brush is increased by pressure on a foot pedal. The indication for this type of therapy is pitted scars following acne, chicken pox, infectious diseases,

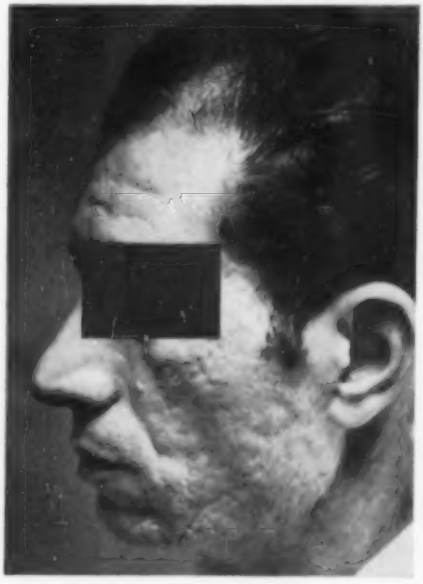

Fig. 2. Case No. 1. Photograph taken 12-24-53. Same patient after two planing procedures.

Fig. 3. Case No. 1b. Photograph taken 9-1-53. J. P. Severe acne condition, right side of face, 15 years duration.

and trauma.

Eller and Lubowe[1] have presented a paper at the Pan-American Medical Association Conference describing the technique for the correction of pitted scars following acne, chicken pox, small pox, pyoderma, and traumatic injuries. We summarized the results following this procedure in two hundred cases.

Occasionally scars exist which accompany other dermatological lesions, as lupus erythematosus, lupus vulgaris, other tuberculoderma, basal cell epithelioma. In these diseases the use of the planing method is contra-indicated and therefore, I believe, that the procedure should be performed by the dermatologist, because correct diagnosis is essential before abrasive treatment is instituted.

After the patient is selected for this type of therapy, the following procedure, as described by Kurtin,[6] and Eller and Lubowe,[1] is employed.

In order to reduce the tenseness and excitement which occasionally is observed in the patient of this type who has been exposed to manifold psychic trauma, because of the cosmetic defect, sedation is secured by the previous administration of phenobarbital ½ grain, Demerol 50 mgm., or Donnatal ¼ grain.

It is recommended that about one-half hour before the planing procedure is commenced, a plastic ice pack, which contains 5 per cent propylene glycol in water, be placed over the area to be

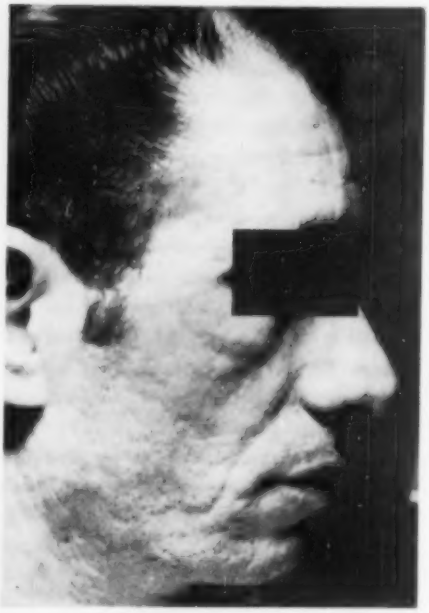

Fig. 4. Case No. 1b. Photograph taken 12-24-53. Same patient after two planing procedures.

Fig. 5. Case No. 2. Photograph taken 10-8-53. W. M. Traumatic scars of left side of cheek and chin.

planed for about twenty minutes. The plastic pre-chilling pack (Duopac) has been previously chilled in the refrigerator.

The area to be treated is then cleansed with soap and Zephiran solution or alcohol. Specific areas are then gently swabbed with Tincture of Metaphen (Nitromersol Tincture) antiseptic, which imparts a red delineation to the skin that acts as a guide to the operator. The eyelids are then covered with a petrolatum ointment; cotton plugs are placed in the aural and nasal orifices; the forehead is covered with a towel to prevent the hair from becoming enmeshed in the wire brush.

Ethyl chloride is sprayed on the areas to be treated. In our experience, we have found only the ethyl chloride manufactured by the Gebauer Company effective because of its specific temperature of volatility. The ethyl chloride acts both as a local anesthetic, and also temporarily solidifies the skin, presenting an even and hard surface for the abrasing wire instrument.

While the ethyl chloride is being sprayed, a cold current of air is directed from a blower to the surface of the skin to aid in a rapid evaporation of the ethyl chloride and, as a result, almost instantaneous freezing of the skin is produced.

Research studies are being conducted to utilize a volatile refrigerant which does not have the disadvantages of ethyl chloride, namely, inflammability, pungent odor, and anesthetic effect when inhaled. Freon derivatives are being studied.

The scars to be treated are abraded by means of the steel brush which can be utilized in different widths, depending upon the skill of the operator, and

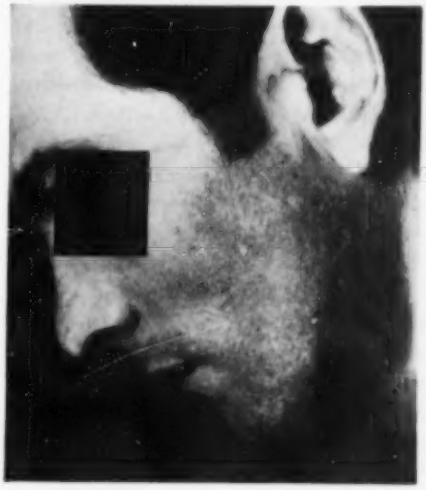

Fig. 6. Case No. 2. Photograph taken 11-12-53. Same patient showing diminution of the depth and fading of the scars.

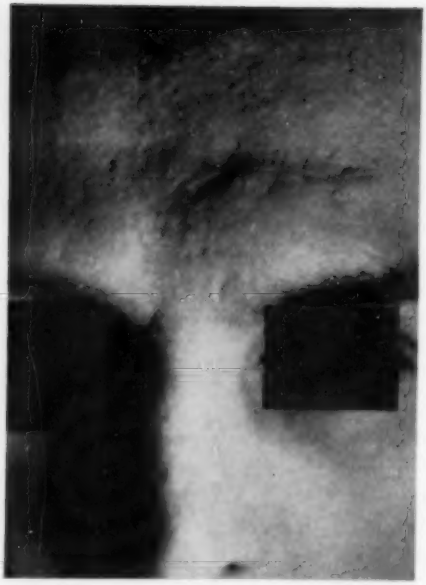

Fig. 7. Case No. 3. Photograph taken 5-4-54. W. M. Deep irregular jagged scar of the forehead.

the size of the involved area, and the depth of the pits to be corrected. The rapidity of the revolutions of the brush is controlled by a foot pedal to which is attached a rheostat. It has been calculated that the revolutions of the steel wire brush can be adjusted to 12,000 revolutions per minute by ample foot pressure. The more frequent the revolutions, the deeper the abrased area.

If a steel burr is utilized, then a small pit may be treated solely. The same type of burr has also been successfully tried in the treatment of onychomycosis, where it is considered advisable to remove the infected nail by means of a rotating instrument. A new burr must be used to prevent re-inoculation with fungi.

As the brush begins to revolve, the shaft is held between the thumb, index and third finger of the right hand; it is then placed against the surface of the skin. The steel bristles are held vertical to the treated area. They are then slowly brought over the operative site in a cross hatching or oval effect to cause a complete abrasion of the scar. Occasionally it is advisable to move the brush in the same plane as the scar. When a deep scar is treated, we place the brush prone against the scar and then initiate the current, gently moving the wire brush in one direction.

If continuous bleeding occurs, then it is prudent to temporarily stop the use of the abrasive brush while the assistant applies pressure until the bleeding stops. Then the ethyl chloride is resprayed until the skin becomes hardened. The use of the brush during surface bleeding

Fig. 8. Case No. 3. Photograph taken 6-17-54. W. M. Patient rephotographed after treatment revealing almost complete disappearance of the scar.

causes splattering of blood droplets which produces a mottled effect on the face and the uniform of the operating team.

It is advisable to treat a small surface of the skin, as nine square inches, at one procedure. This treatment may be repeated after a four to six weeks interval. Healing occurs more rapidly after the second treatment.

The operative site is covered by Vitamin A and D ointment over which is placed a sterile Aureomycin gauze. Bandaging with sterile gauze and adhesive tape follows. The dressing is allowed to remain in situ for forty-eight hours. The patient is advised to apply boric acid compresses to the abraded area followed by a redressing of vitamins A and D, Neobacin, Terramycin, Boric Acid, in Tyrotrace ointment, and sterile gauze.

Localio[13] has demonstrated, experimentally, that there is an increase in the rapidity of repair of skin wounds when methionine is added to the diet. We are using acetyl methionine dispersed in Vitamin A and D ointment to ascertain whether healing of the planed tissue is influenced rapidly with the methionine ointment.

We also prescribe ascorbic acid, 250 mg. t.i.d., because we believe a low concentration of plasma ascorbic acid prevents the proper healing of wounds.

The superficial scarring is usually reduced after this planing procedure. There are hyperpigmented areas which may follow the treatment; however, after progression of three months the skin resumes its normal aspect in color and appearance.

Frequently small milia appear subsequently in the operative site which can be removed aseptically with a Hagedorn needle. We believe the formation of the milia is due to an artificial closure of the opening of the sebaceous gland, and as a result the sebum collects, forming these milia.

We have repeated this corrective procedure several times without any untoward effects, and with a gratifying result.

This method is advised when other accepted methods are of unproven therapeutic value. We do not recommend this corrective procedure in the treatment of superficial nevi and basal cell epithelioma because of the effective usage of electrodesiccation, currettage, and x-ray which have heretofore produced excellent results.

Rein and Blau[12] have been instrumental in collecting the results from many dermatologists who have utilized the corrective planing method. The summary was presented at a meeting of the American Dermatological Association, April 19, 1954.

This corrective planing method has been performed empirically for three years with satisfactory performance. We believe that scientific studies should be conducted to determine the reasons for the effective improvement of the scars with this therapy. We suggest histological sections of the skin before and after treatment. These histological sections would indicate the depth of the original scars and the type of tissue repair which subsequently takes place. We can then determine whether the improvement is due to an actual regrowth of cellular tissue, or to mechanical planing and smoothing of scar and normal tissue which may impart a visible, but not a microscopical, improvement.

The following theories have been advanced for the apparent improvement

of the appearance of the skin following this corrective technique.

1. The simple abrasive method of planing down of the normal tissue to the level of the scar tissue removes the irregular and unequal edges of the scars.

2. The abrasive method applied to the skin causes a proliferation of healthy epidermal tissue to cover the scar. This resembles the process of saucerization.

3. The abrasive method may stimulate the epidermis of the margin of the hair follicles causing a regeneration and an upgrowth of normal epidermal tissue production to cover previous scar area.

Several proponents of this corrective planing method suggest that if sterile gauze was held above the area which was being treated by the abrasive method, the released tissue could be collected on the under surface of sterile gauze, and then be utilized for pinch grafts in plastic surgery. We have had no experience with this ingenious therapeutic suggestion.

Recently we have treated hypertrophic scars, which are not keloidal, with excellent results. Case No. 3 demonstrated how effective corrective planing can be in this type of scar.

Summary

The pitted acne scars, which are the most significant indication for this planing procedure, can usually visibly be improved from fifty to seventy per cent. The deep-seated or irregular scars which are located in the corium and subcutaneous tissue are usually aided to a lesser degree.

However, we recommend this corrective procedure because of the gratifying results which can be obtained with pitted scars, which were previously considered to be inaccessible to any therapy. It is a safe and simple office procedure, when performed cautiously by an experienced operator.

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667 Madison Avenue

A More Effective and Better Tolerated Nasal Decongestant

Report of Clinical Trial of Tyzine

FRED A. PARISH, M.D., F.A.C.A.
Whitman, Massachusetts

This paper reports experience with a new sympathomimetic drug, Tyzine*, used as a nasal decongestant. The details of the study to be presented indicate that Tyzine offers positive advantages over earlier topical vasoconstrictors, as regards effectiveness and tolerance.

A great many synthetic compounds are available that are classed as sympathomimetic agents, a term used to indicate that their effects imitate those of impulses conveyed by adrenergic postganglionic fibers of the sympathetic nervous system.[1] The most prominent of these effects is constriction of peripheral blood vessels with resultant increase in blood pressure. Many such compounds also have a central stimulatory effect.

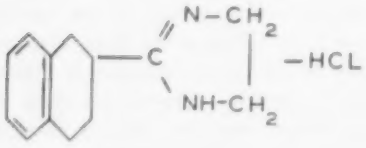
Chemically, most of these agents are composed of an aromatic nucleus and a side radical containing an NH or NH_2 group (thus the term "pressor amines"). The available compounds show numerous variations on both portions of the molecule.[2] Many have been found useful for topical application to mucous membranes in solutions of suitable concentration to provide a local constriction of small blood vessels and thereby relief of inflammatory hyperemia and edema.

Those in clinical use as nasal decongestants have, in many patients, entailed certain disadvantages. The more potent of them, in terms of the percentage of patients benefited and the duration of action, frequently produce unpleasant local and systemic effects. Locally, they may be irritating (with smarting and sneezing) or, on repeated use for more than a few days, they may result in rebound congestion so that the patient becomes dependent upon the nose drops and recovery is thus delayed.[3] The adverse systemic effects are produced when significant amounts of the drug are absorbed transmucosally, thus resulting in cardiovascular and/or central stimulation with such manifestations as palpitation, increased blood pressure, headache, dizziness, nausea and vomiting, nervousness, tremors, and insomnia.[4] Pressor effects are particularly undesirable in patients with hyper-

* Tyzine (tetrahydrozoline) Nasal Solution, Chas. Pfizer & Co., Inc., Brooklyn, New York. The new sympathomimetic agent contained in this preparation has been known as Compound 5-8-61 in preliminary clinical studies.

thyroidism and hypertension. The disadvantage of agents that are free of adverse local and systemic effects, on the other hand, is that they generally are lacking in potency.

These shortcomings of the vasoconstrictors in current use as topically administered nasal decongestants have spurred a search for a compound combining the properties of high potency, prolonged action, and absence of adverse reactions, both local and systemic, even with frequent and prolonged use. Recently a compound that appears, on the basis of pharmacologic studies, to fulfill these desiderata has been made available for clinical trial. The purpose of this report is to present details of a clinical trial of this new compound, which has been named "Tyzine" by the manufacturer and is designated chemically as 2-(1,2,3,4-tetrahydro-1-naphthyl) imidazoline hydrochloride. It is represented by the following structural formula:



This new sympathomimetic compound differs from previous ones in that only one carbon atom, rather than two, separates the aromatic nucleus from the nitrogen in the side radical.

Tyzine is supplied for intranasal application in 0.1% aqueous solution, which is odorless and tasteless and has a pH between 5.5 and 6.5. In pharmacologic studies[5] the solution was shown to possess potent vasoconstrictive action when applied topically and was found not to inhibit ciliary motion in rat tracheal rings (thus suggesting that ciliary drainage of nasal mucus should not be impaired by its use clinically). Repeated application to rabbits' eyes was found to be nonirritating. By determination of the LD_{50} in mice (intravenous route of administration), Tyzine was shown to be less toxic than either phenylephrine (Neo-Synephrine) or naphazoline (Privine). Absence of a central stimulant action was demonstrated in mice, thus suggesting that the drug should not produce such side effects as nervousness and insomnia even if it were absorbed transmucosally when used clinically. That it is not appreciably absorbed when used intranasally is indicated, however, by the fact that intranasal applications of 1 cc. of 1% solution in dogs produced no increase in blood pressure.

Materials and Methods Instillations of Tyzine Nasal Solution (0.1%) were used in the treatment of 79 patients (35 males and 44 females) ranging in age from 2 to 60 years, including 13 children under 12 years of age. Nasal congestion in 18 patients was caused by pollinosis (grass and ragweed); 31 patients had allergic or vasomotor rhinitis caused by sensitivity to dust, molds, *Alternaria*, or unknown factors; 23 had coryza and 3 had sinusitis with nasal symptoms; 2 were suffering from rhinitis due to overdosage of ragweed antigen; and treatment in 2 cases was for postnasal drip.

Adult patients were instructed to use three or four drops in each nostril p.r.n. and children received one or two drops in each nostril p.r.n. (In practically all cases instillations were made at intervals of three or four hours.) Treatment was continued over two or three

days in most cases, and for as long as several weeks in some.

Results The results obtained in this series with Tyzine Nasal Solution are shown in the following table. Results are classified as "excellent" if relief lasted for two hours or longer after instillation of the drops, as "fair" if relief was only partial or did not last as long as two hours, and as "poor" if there was little or no relief.

Therapeutic Results in 79 Patients

Diagnosis	No. of Cases	Results: Excellent	Fair	Poor
Allergic rhinitis (other than pollinosis)	26	20	3	3
Coryza	23	21	1	1
Pollinosis	18	15	3	–
Vasomotor rhinitis	5	5	–	–
Sinusitis	3	1	–	2
Postnasal drip	2	2	–	–
Nasal reaction to overdosage of ragweed antigen	2	–	2	–
TOTALS	79	64	9	6

From the figures shown in the table it will be seen that only 6 of the 79 patients had no relief while 92.4 per cent were benefited, with 81 per cent obtaining excellent relief. One patient whose response is listed as fair had excellent relief of congestion but no relief of rhinorrhea. Nasal discharge as the primary symptom was relieved, however, in the 2 patients with postnasal drip and in 1 with coryza. Of the 8 other patients whose response was fair, congestion was only partially relieved in 1 (with pollinosis) and in 7 relief lasted for only one-half hour to one and a half hours after instillation of the drops.

Duration of Effect—In 65 patients having excellent relief of nasal congestion (or of excessive nasal discharge in 3 cases), the response appeared promptly after instillation of the drops and lasted for from two to more than six hours. In the majority (56 patients) the duration of relief was three to four hours, in 6 patients it was two to two and a half hours, and in 3 relief lasted for from five to more than six hours. The duration of action following bedtime instillation was found long enough to provide continuous relief through the night, so that sleep was not disturbed by the return of congestion and the need for remedication before morning. Continuous relief through the day could be maintained, of course, by repeating the instillations at intervals as needed.

Absence of Untoward Effects—The lack of odor and taste of the solution were particularly pleasant qualities, and no adverse reactions, local or systemic, were noted in any case. Repeated or frequent use of the solution, for as long as several weeks, did not result in the appearance of irritation or rebound engorgement of the nasal mucosa. No instances of rhinorrhea, which is apparently induced as a consequence of the vasoconstrictive action of some nose drops, occurred with the preparation. Such symptoms as palpitation, increased blood pressure, nervousness, and insomnia which sometimes occur with the topical use of other vasoconstrictors, as a result of their absorption into the blood stream, were not observed with this preparation.

Summary and Conclusions

Tyzine, a new sympathomimetic compound supplied in 0.1% aque-

ous solution for topical use as a nasal decongestant, was employed in the treatment of 79 patients, including both children and adults. Of this group, 53 had various nasal allergies, 23 had coryza, and 3 had sinusitis. Use of the solution as nose drops gave excellent results in 81 per cent of the cases, fair results in 11.4 per cent, and failed to provide relief in 7.6 per cent. The vasoconstrictive action generally lasted three to four hours after instillation of the drops and was maintained continuously, for several weeks in some cases, by repeating instillations as needed.

There were no unpleasant aftereffects such as rebound engorgement, stuffiness, or irritation; neither were there any instances of nausea, vomiting, or other systemic reactions as occasionally occur in some individuals using nose drops.

Tyzine Nasal Solution was found to be a highly effective as well as safe and well-tolerated nasal decongestant. It had the advantages both of producing no local reactions, thus avoiding the unpleasant rebound congestion sometimes resulting from the use of other nasal solutions, and of providing vasoconstriction for longer periods of time without any systemic effects. Various types of nasal allergy, as well as coryza, were benefited by the use of this preparation.

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191 South Avenue

Estrogen-Vitamin Antiabortive Therapy

EDUARDO F. PENA, M.D.
Miami, Florida

In a preliminary study[1] of the use of combined estrogen-vitamin, Desplex,* therapy in a pilot group of 200 pregnant women, including 90 habitual aborters, the extraordinarily favorable result of but two abortions (1 per cent) was obtained. It has been estimated that without treatment from 10 to 20 per cent of all pregnancies abort, and that 22 per cent of women who have aborted once, 33 per cent of those with history of 2 abortions, 68 per cent of those with 3 previous abortions, and 88 per cent of those with 4 previous abortions will abort again.[2] In view of these data the pilot study of 200 women was extended to include one thousand additional routine pregnancies.

Ninety-six per cent of this definitive group of 1200 women, 540 primiparas and 660 multiparas, including 540 who had previously had from one to nine abortions, were carried successfully to term by liberal dosages of stilbestrol and vitamins as contained in Desplex. Considerably less favorable results have been reported[3–10] from the use of stilbestrol in less adequate dosages and without concomitant vitamin therapy.

Progesterone Therapy Important also as a factor contributing toward failure in the management of abortion and premature labor is the persistent dependence upon progesterone, which often actually increases the chance of abortion by suppression of the production of endogenous progesterone.[11]

A recent study[12] of the treatment of habitual abortion by progesterone pellet implantation resulted in 80 per cent of live babies in the treated group of 60 cases and 75 per cent in the control group of 53 cases, not a significant difference.

Estrogen Therapy Stilbestrol, unlike progesterone, does not suppress but stimulates placental hormone production. Its use as an antiabortive remedy is not as an estrogen in the sense it is used as substitution therapy in the menopause and other estrogen deficiencies, but rather as a whip to the lagging hormone activity of the corpus luteum in early pregnancy and later of the placenta.[13] Stilbestrol also primes the uterine muscle for the inhibiting action of progesterone.

Other Endocrine Factors The last few years have advanced the study of

* Desplex Tablets, Grant Chemical Company, Inc., New York, N. Y. Each tablet contains micronized diethylstilbestrol 25 mg., thiamine hydrochloride 2 mg., riboflavin 2 mg., pyridoxine hydrochloride 1 mg., ascorbic acid 50 mg., calcium pantothenate 10 mg., niacinamide 50 mg., folic acid 0.25 mg., and vitamin B_{12} 0.5 mcg.

spontaneous abortion through a better knowledge of the interplay of the several hormones during pregnancy. It is now well known that imbalances not only between progesterone and estrogens but also among thyroxin, chorionic gonadotropins, adrenocorticoids and even androgens may contribute to produce abortion.[14]

Successful pregnancy depends on a delicate balance and harmony in the endocrine concert which is increased in pitch and tempo. Just as a false note in the symphony may cause cacophony, so, by even a slight endocrine imbalance, may pregnancy end in disaster.

The importance of the thyroid in acceleration of all glandular activity and the frequency of subclinical hypothyroidism as a cause of abortion justify the more frequent use of thyroid and the determination of basal metabolic rate in questionable cases. 17-ketosteroids, normally 6 to 10 mg. per liter of urine of women, may be considerably below this value in toxemia of pregnancy and above normal in some cases of abortion.[14] Study of the adrenocortical steroids in abortion, just now beginning, may also soon be valuable in management.

Vitamin Therapy During the past decade many physiologic and therapeutic analogies have been developed between hormones and vitamins. Certain vitamins are found to be essential to the optimal action of hormones and vice versa. Among these discoveries are the necessity for ample concentrations of vitamin C for the full effects of estrogens, the need for vitamin B factors, for high protein diet, and possibly for vitamins E, D, P and K in the protection of pregnancy.[2]

Tests for Deficiencies Among the many tests for determination of hormone and vitamin deficiencies during the course of pregnancy is the vaginal smear as a guide to the treatment and prognosis of threatened abortion.[15] This, like the basal metabolic rate determination, is one of the more simple tests. Others, like the determination of 17-ketosteroids, pregnanediol, gonadotropins,[16] etc., are too complicated and time consuming for practical routine clinical use by the gynecologist or the general practitioner, who are accordingly justified in the empiric use of certain polypharmaceutic preparations in the routine maintenance of the normal course of pregnancy. Certainly a formula such as used in this study is justified by the results obtained.

Endocrine and Vitamin Requirements It has been demonstrated repeatedly that enormous quantities of estrogens may be given during pregnancy without untoward effect on mother or child,[17] so that underdosage rather than overdosage is the usual cause of failure of stilbestrol therapy in threatened and habitual abortion and in premature labor.

Similarly it is unlikely that the diet of the pregnant patient will contain excessive amounts of vitamin C and vitamin B, particularly the folic acid, thiamine, riboflavin, pyridoxine, pantothenic acid, niacinamide and the B_{12} factors, all of which are essential to the maintenance of normal pregnancy.[18, 19] It is logical, therefore, to ensure adequate concentrations of these vitamins by their routine administration along with the stilbestrol ration. Excess of any of these essentials can do no harm; deficiency may destroy the pregnancy.

Rationale of Polyvitamin-Endocrine Therapy Fortunately, hormone

and vitamin disturbances are more apt to be of deficiency than of excess. Therapy, therefore, becomes administration either of the single exogenous factor suspected of deficit, or, if this cannot be determined simply, of a pharmaceutical farrago containing several hormones and vitamins from which the deficiency is corrected by the well known selective physiologic principle, the Weber-Fechner law, revamped for vitamin-hormone therapy. It is upon this rational principle that Desplex is formulated. Deficiencies of one or more constituents are corrected without harm from the comparatively small amounts of constituents in which there is no deficiency.

The results of routine use of this vitamin-hormone combination justify its use not only in the treatment of threatened and habitual abortion and in premature labor but also routinely in all cases of pregnancy, since it is impossible to select, even among the multiparas, which patients might otherwise abort.

Dosage Routine Primiparas and multiparas without previous history of abortion were usually given 25 mg. Desplex daily from the second to the fourth month, 50 mg. daily from the fourth to the sixth month, and 75 mg. a day thereafter to term. When there was a history of miscarriage 50 to 75 mg. was the daily dose throughout the first trimester, 100 mg. through the second, and 100 to 150 through the third. At the first threat of abortion—backache, lower abdominal tenderness or pain, spotting or cramps—dosage was increased to 300, 400 or 500 mg. a day. In addition to this oral dosage patients with the more severe indications of impending abortion were given intramuscular injections of 50 mg. or more of injectable micronized diethylstilbestrol, Bio-des,* every six hours until the symptoms were controlled.

Initial dosage was determined by a consideration of the number of previous abortions and the period in the pregnancy in which they occurred. Dosage was increased at times corresponding to the menses. In known habitual aborters therapy may be employed to advantage before conception.

Several cases in this series were bleeding when first seen during the second, third or fourth week. Under these conditions even the most heroic dosages may fail. The earlier therapy is begun the better, and no harm results from establishing moderate stilbestrol and vitamin concentrations even before conception in a chronic aborter wanting successful pregnancy.

Case Reports Illustrative of the 1200 cases observed in this series the following four histories are reported in some detail:

J. F. Age 25. This patient was first seen in February, 1946, with symptoms of subacute post-infection discharge following a miscarriage. In March, 1947, she induced abortion by injection of rubbing alcohol into the cavity of the uterus through a rubber catheter. She was hospitalized for dilatation and curettement. At this time she was given two daily doses of 25 mg. Desplex with salutary effects in control of the post-abortal endometritis. Hospitalization of but two days was required. In February, 1948, she was found to be pregnant, was treated elsewhere with progesterone and stilbestrol and aborted at 6 weeks. In March, 1950, following a

* Bio-des, Grant Chemical Company, Inc., micronized diethylstilbestrol in sesame oil, 25 mg. per cc.

Rubin test she became pregnant and was found to have a positive Wassermann reaction. She was given intensive penicillin antisyphilitic and stilbestrol antiabortive treatment, but miscarried again at 6 weeks. In November, 1950, she was again pregnant, was treated elsewhere with stilbestrol and aborted at 6 weeks. On April 3, 1951, she was found to be pregnant and was given intensive estrogen therapy. This pregnancy ended successfully in October with the birth of a baby weighing 6 lbs. 15 oz. Her last pregnancy started September 27, 1952, and was followed throughout with Desplex therapy, 100 mg. daily up to the sixth month and 200 mg. thereafter. Delivery, in June, 1953, of a 7-lb. infant was uneventful.

E. C. Age 35. Previous to her first visit, December 6, 1949, this patient had had two miscarriages—February, 1948, and in July, 1948. In February, 1950, and again in October, 1951, she miscarried at two weeks in spite of progesterone-stilbestrol therapy. Her last pregnancy started October 20, 1952. She was given 100 mg. of Desplex daily ap to the fourth month when the dosage was increased to 200 mg. and continued until August 11, 1953, when she was delivered of a male infant weighing 8 lbs. 9 oz.

V. G. Age 27. This patient had a history of five miscarriages and premature labors. In August, 1947, she had a normal spontaneous delivery of a male infant weighing 9 lb. 9 oz. In February, 1949, and in December, 1950, she had miscarriages at 4 and 3 months in spite of intensive oral and injection progesterone therapy. In July, 1951, she miscarried again at two and one-half months while under even more intensive progesterone (50 mg. daily intramuscularly) and estrogen (10 mg.) therapy. In November, 1951, she became pregnant again and was placed immediately on Desplex 25 mg. t.i.d., progesterone 10 mg. q.i.d. by buccal absorption, and thyroid 1 gr. daily. After one week all medication except Desplex was discontinued. Throughout this entire pregnancy, which terminated successfully, 75 mg. Desplex was given daily. In July, 1953, at six and one-half months she had severe bleeding from premature separation of the placenta. An infant of three and three quarters pounds was delivered by cesarean and the placenta was found as a central insertion.

E. A. Age 31. This patient in December, 1942, had a spontaneous miscarriage at 8 weeks. In June, 1948, she had another miscarriage with severe hemorrhage. She was given transfusions of 1500 cc. whole blood and a dilatation and curettement. In October, 1949, she was found to be pregnant and was given 25 mg. progesterone intramuscularly and 25 mg. stilbestrol daily, but miscarried at 6 weeks. In January, 1950, she had a missed abortion and was given a dilatation and curettement. In March, 1951, she was again pregnant and this time therapy was limited to Desplex—50 mg. increased to 100 mg. daily after the fourth month. At seven and a half months she was delivered of two female infants, one of 5 lb. 14 oz. and the other of 5 lb. 7 oz.

Comments These four cases, typical of the entire group of 1200, demonstrate that:

1. Progesterone is ineffective as an antiabortive either alone or in combination with estrogens.

2. Estrogens in general, Desplex par-

ticularly, are more effective when used alone in conjunction with progesterone.

3. Estrogens generally, including other synthetic estrogens and crude stilbestrols, are less effective antiabortives than micronized diethylstilbestrol in combination with essential vitamins as contained in Desplex.

4. Desplex employed after either spontaneous or therapeutic abortion favorably influences the morbidity and period of hospitalization as reported by Reiss[20] and more recently by von Friesen[21] in a review of the spontaneous, therapeutic and illegal abortions in Stockholm.

Summary

In a group of 1200 women, 540 primiparas and 660 multiparas including 540 who had had one to nine abortions, 96 per cent of successfully terminated pregnancies was obtained by the use of Desplex, micronized stilbestrol in combination with the vitamins known to be essential to normal pregnancy.

The rationale of hormone and vitamin therapy of threatened and habitual abortion and premature labor is discussed.

Routine use of Desplex in large dosage and in all cases of pregnancy —primiparas, multiparas and habitual aborters—is recommended as a prophylactic measure against miscarriage, abortion and premature labor.

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515 DuPont Building

Riedel's Struma

BERNARD J. FICARRA, M.D.
Brooklyn, N. Y.

Among the rare pathologic entities encountered in thyroid disease is Riedel's struma. The infrequency of this disease is readily appreciated when one looks at the statistical reports in the literature. In 1940 A. Graham studied 17,826 thyroidectomy specimens and found only 27 instances of Riedel's struma, an incidence of only 0.15%.[1] More startling than these figures are those reported by T. Levitt of London in his recent textbook.[2] He investigated the literature quite intensively and found only 92 verified cases in 46,698 thyroidectomies. In this last group no individual author has a large series. The incidence of Riedel's struma in all cases ranged from 0.03% to 0.4%. These reports clearly indicate that Riedel's struma is categorized as a clinicopathologic rarity.

In view of this rarity, I should like to report the case history of a young woman with Riedel's struma.

Case Report Mrs. A.P. is a 36-year-old housewife and mother who enjoyed good health until October 1953. At that time she presented a three week history of nervousness, irritability and loss of weight (10 lbs. in 3 weeks). In addition she complained of a mass in the left side of the neck. This mass increased quite rapidly over a three week period. With this rapid enlargement she experienced a compression-like pressure in her neck with an accompanying sensation of choking. Examination of the neck demonstrated a palpable hard adenomatous mass in the left lobe of the thyroid. This mass was densely adherent to the left prethyroid muscles.

The patient was prepared for surgery with a new iodine preparation. This product is called I.P.G. It is a capsule similar in size, shape and consistency to the familiar vitamin capsules of standard variety. This capsule contains 2½ grains of iodine. The patient took one capsule daily for two weeks and then entered the hospital for surgery.

On November 18, 1953 a subtotal thyroidectomy was performed. The gland was densely adherent to adjacent structures. The trachea was cleansed of firmly adherent thyroid tissue. Histologic examination of the operative specimen revealed Riedel's struma.

The patient was seen in June 1954 and has no complaints whatsoever.

Discussion In the clinical evalua-

Department of Surgery, Roslyn Park Hospital, Roslyn Heights, New York.

tion of Riedel's struma the history at times may be suggestive of this disease. The sudden appearance of a firm unilateral mass in one lobe of a gland within a few weeks which may or may not be associated with nocturnal dyspnea and/or cyanosis is characteristic of this type of struma. Pressure phenomena predominate over toxic thyroid symptoms. The pressure symptoms become more intensified as the mass spreads across the isthmus and becomes adherent to adjacent structures by dense adhesions.

The disease most commonly confused with Riedel's struma is struma lymphomatosa (Hashimoto's disease). The present thought of modern pathologists and surgeons is to regard each of these as two distinct diseases. Often these entities are difficult to differentiate from each other. For this reason, the following table is of significant value.[3]

In addition to the differentiating points given in the above table, Riedel's struma on palpation may feel as if it is "frozen" in the neck. It is the hardest pathologic entity (except a calcified adenoma) felt in the neck. It is as hard as cartilage, is cut with difficulty and does not bleed freely. Because it is so hard, it is called "iron struma" or "ligneous" or "woody" thyroiditis.

Surgical intervention is necessary in patients with Riedel's struma for the following two reasons:

1. To exclude the presence of malignancy.

2. To prevent severe tracheal compression.

At the operating table the gland is characteristically firm, does not bleed

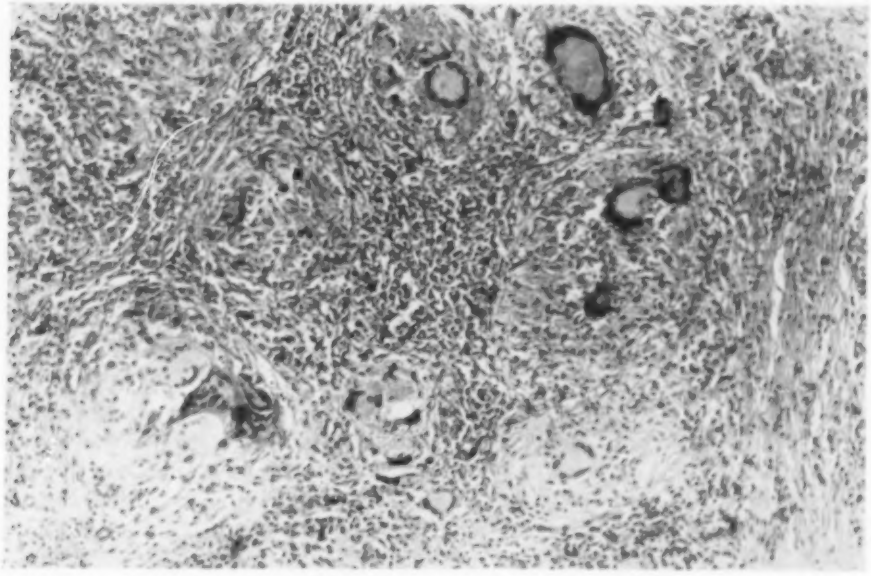

Fig. 1. Microscopic section illustrating an important point in the histological differentiation of Riedel's struma from Hashimoto's struma. In Riedel's struma there is a persistence of normal colloid in some acini as shown here.

Hashimoto's Disease (STRUMA LYMPHOMATOSA)	Riedel's Struma (LIGNEOUS THYROIDITIS)
1. Usually found in women.	1. Equally distributed in both men and women.
2. History of myxedema may be obtained.	2. Little tendency toward myxedema even after thyroidectomy.
3. Gland involved diffusely and bilaterally.	3. Involvement is usually unilateral, appearing as a discrete nodule.
4. Pressure symptoms are of tracheal constricting variety.	4. Pressure symptoms as hoarseness, difficulty in swallowing and vocal cord limitation on involved side are common.
5. Periglandular adhesions are absent.	5. Dense adhesions to adjacent tissue are common.
6. Pyramidal lobe is prominent.	6. Pyramidal lobe usually not prominent.
7. Histologically fibrosis is circumscribed.	7. Histologically fibrosis is diffiuse.
8. Lymphoid hyperplasia is pronounced.	8. No Lymphoid hyperplasia.

freely and is densely adherent to adjacent structures and especially to the trachea. Macroscopically, the thyroid gland has a central and peripheral ring of relatively normal thyroid tissue. A layer of white fibrotic tissue is disposed as a concentric ring with an irregular periphery.

Microscopically the section reveals a persistence of normal colloid in some acini. This is in contradistinction to Hashimoto's disease in which there is no normal colloid in any acini, but rather a diffuse infiltration of lymphocytes so voluminous that in some instances the collections resemble a lymph node. In Riedel's struma, moreover, the fibroblastic reaction which precedes and accompanies the fibrotic process may have the cystoarchitecture not unlike a "spinal cell" sarcoma.

Summary

1. **A case study of Riedel's struma is reported.**
2. **The rarity of this disease of the thyroid is discussed.**
3. **The unusual clinical and pathologic manifestations of this disease are presented.**

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Pruritus Ani

CHARLES A. NEUMEISTER, M.D.
Minneapolis, Minnesota

The literature on pruritus ani is voluminous and the treatment varies with the physician who is called upon to treat this difficult syndrome. All too often the topical application is the one which was recommended by the last drug detail man who called and the treatment is often only topical. It is not the purpose of this paper to review all the literature, theories of etiology, and various types of treatment. We should like to present a concept of this syndrome which has evolved from observation of patients and certain experimental data which have been published in the literature. Based on this concept of the syndrome of pruritus ani a method of treatment which has been successful in relieving the greatest number of our cases will be outlined.

Pruritus ani is a symptom complex and not a disease as has been assumed by many physicians. It is true that there are many cases of anal pruritus in which no definite clear cut etiology can be demonstrated. These are the cases which try both the physician and the patient. This symptom complex has been referred to as primary, idiopathic or cryptogenic pruritus and/or other terms. The term cryptogenic as used here does not in any way refer to the anal crypts. Some patients with presenting complaints of pruritus have anorectal pathology amenable to surgery which is at least in part a contributing factor in the pruritus syndrome. It is this type that has been classed as secondary pruritus. Secondary pruritus may also be the result of parasitic infection, allergy, leakage of secretion from the bowel mucosa, direct mechanical trauma, chemical irritants or, rarely, a complication of one of the metabolic diseases.

So-called secondary pruritus should be ruled out in all cases before any treatment is begun. We will mention briefly a few of the conditions which can cause secondary pruritus and try to discuss a little more thoroughly our concept of the so-called primary pruritus and outline a treatment of this syndrome.

The common conditions which are at times associated with perianal pruritus are anal fissure, fistula-in-ano, proctitis and hemorrhoids. A chronic recurrent anal fissure usually has an anal stenosis as the primary pathology. If hard stools are passed the fissure opens

Clinical Instructor in Proctology, Department of Surgery, University of Minnesota, Minneapolis, Minnesota.

and is painful for a period of time. There is a residual discomfort which is relieved by scratching and there is soon a secondary mechanical skin irritation. There may also be serum seepage or small amounts of purulent drainage from a secondary infection of the fissure which further irritates the skin. Soon the syndrome of pruritus has been established. Oftentimes the patient with a recurrent fissure learns if he keeps the stool semi-liquid the pain from the fissure is much less. He begins to take laxatives and the soft stools make cleansing the perianal skin more difficult. As a result of the mechanical trauma of cleansing and from constant soiling by soft stool itself, a perianal irritation occurs and the primary symptom is pruritus. Any condition which gives rise to a chronic discharge that keeps the perianal skin moist will eventually lead to irritation and pruritus. The discharge from a fistulous tract, the constant mucous seepage from large prolapsing internal hemorrhoids and the mucous leak of a granular proctitis can all give rise to irritation from moisture. One should also classify rectal prolapse, either complete or varying degrees of mucosal prolapse, in this group. In mild cases of rectal prolapse or redundancy the rectal mucosa for an inch or so above the dentate line will be red and irritated, while above this point the mucosa will be pale and normal. This is a frequent occurrence in pruritus cases. The conditions mentioned above are surgical with the exception of proctitis and their treatment is fairly well standardized and quite satisfactory. It goes without saying that if the pruritus is a secondary manifestation of one of the surgical conditions, surgical treatment of the primary pathology is essential to its cure. It should be kept in mind, however, that there may be a residual pruritus after surgery which will require some treatment.

So-called secondary pruritis can be due to parasitic infections such as pinworms, trichomonas, monilia and fungus infections. The diagnosis of these can be established by relatively simple laboratory tests and their treatment is fairly well standardized. Diabetic patients are more prone to monilial infection. Diabetes should be considered in all patients with pruritus.

Various chemical irritants can cause severe itching. The most common chemical type pruritus is that which is secondary to the use of the new oral broad spectrum antibiotics. The treatment of this type of pruritus is the same as for the so-called idiopathic or primary type of pruritus with the exception that the irritant should be removed from the patient's G. I. tract.

Studies by Slocumb on patients with severe pruritus revealed that many of the patients with pruritus exhibit a significantly elevated pH of the rectal contents. The normal pH of the rectal contents is between 6.0 and 7.5. Many patients with pruritus have a pH of the anal secretions between 7.5 and 9.0. Another significant study done by Friedman, Haskell and Snape showed that 80 percent of patients with moist pruritus had trypsin-like enzymes in the rectal secretions. Trypsin has its greatest enzymatic activity at pH 8. This activity is maintained as alkalinity increases. The activity rapidly decreases with decreasing pH to complete inactivity at pH 5.5. It is quite apparent that many patients with pruritus have a pH of the rectal secretion which is ideal for trypsin activity. Everyone

is familiar with the irritation of the skin about an abdominal ileostomy and a proximal colostomy. The skin about a sigmoid colostomy seldom becomes irritated by the fecal soiling. The decreasing pH in the distal colon gradually neutralizes the digestive enzymes and irritation is much less likely. The lower pH of the distal colon is largely due to the bacterial flora within the bowel. The colon bacilli thrive in a slightly acid medium and help to maintain this ideal environment by secreting acid. The perianal irritation following an acute diarrheal episode is well known to everyone. In some respects the perianal irritation of so-called primary pruritus can be compared to the irritation about an ileostomy or high colostomy. It is also similar to the perianal irritation of an acute diarrhea inasmuch as a large segment of patients with pruritus have one or more soft stools a day.

The main factors responsible for the onset of so-called primary pruritus are:

1 Change in bacterial flora
   a. Use of oral antibiotics
   b. Ingestion of contaminated food (dysentery)
      (Staphylococcus infestation, etc.)
2. Chronic soft stools
   a. Neurogenic (so called nervous bowel)
   b. Dietary
   c. Anatomical (extensive resections —internal fistula)
3. Perianal hygiene
   a. Incomplete cleansing of soft stool
   b. Abrasive action of cleansing agents
   c. Tight fitting clothing and constant moisture
   d. Direct sensitivity to dyes, cleansing tissue, etc.

Once the irritation is present and scratching has caused fissures in the perianal skin, secondary infection of the tiny abrasions causes further irritations and the syndrome of pruritus is firmly established. The longer it persists the greater the skin changes and consequently the more prolonged the treatment. Unfortunately it is impossible to assure the patient with pruritus that once he is symptom free he will never have recurrence. Any one of the above mentioned factors can cause a recurrence at any time and the patient should clearly understand this before treatment is begun. He should also understand that if there is a recurrence he must go back on treatment to bring it under control.

The treatment of so-called primary pruritus is divided into four main categories. They are:

1. A diet eliminating irritants and the laxative foods.

2. Re-establishment of a normal stool both in consistency and pH.

3. Local treatment to relieve the distressing symptoms of pruritus.

4. In many cases a rectal irrigation is a valuable adjunct.

It is necessary for the physician to spend a great deal of time with the patient to adequately explain what he is to do. There are many opportunities for misunderstanding and unless instructions are followed accurately, chances for relief are much less. This also must be made clear to the patient.

First, we should like to briefly discuss the dietary limitations. We place the patient on a diet which eliminates all spices and condiments. Only salt and very little pepper are permitted. Rough indigestible foods like nuts, popcorn, seedy fruits and wholewheat products

are prohibited. All foods which the patient knows cause gas in his particular case are restricted. Citrus fruits and citrus juices as well as tomato and pineapple are eliminated. Coffee, tea and coca cola are prohibited. Only Sanka coffee and Postum are permitted. Smoking, like caffeine, tends to increase nervous tension and the patients are advised to stop or cut down their smoking. Alcoholic beverages with the exception of Scotch whiskey or rum diluted well with plain or charged water are also eliminated.

Next, very careful instructions about the care of the perianal skin must be outlined. The patient should never scratch. In very severe episodes they are advised to use a cold wet pack to give rapid temporary relief. After bowel movement the perianal skin must be thoroughly and gently cleansed. This is best accomplished with wet cotton or wet toilet tissue. The skin should be dried by gentle patting rather than rubbing. The use of soap for cleansing is undesirable as the alkaline pH of the soap further aggravates the already irritated skin. Every attempt should be made to keep the skin dry. Tight fitting garments like girdles which bind the buttocks together should be discouraged as perspiration and moisture macerate the skin and prolong recovery.

In order to help keep the perianal skin free from irritating secretions in most cases it is necessary to keep the rectum free of mucus and stool. A mild astringent rectal irrigation is prescribed twice a day. One can use a solution of lactic acid or 1:5000 potassium permanganate for this purpose. About a pint of solution should be used to flush the rectal ampulla twice a day. The solution should be injected about four ounces at a time in order to prevent cramping. The procedure can be compared to rinsing the mouth after brushing the teeth. Removal of mucus and fecal material by this procedure helps prevent seepage or soiling the skin when the passage of gas occurs.

The topical application to use externally should be selected on the basis of the severity of the skin reaction. If the dermatitis is wet and weeping, cold wet dermatologic packs are the treatment of choice. Recently we have had good success with a combination Burow's colloid solution as a wet pack. As the skin reaction subsides a drying lotion seems to be the most satisfactory. In our own practice we use a solution of 95 percent ethyl alcohol to which is added one percent salicylic acid and one percent camphor.* This seems to be the best single topical application we have been able to find. It is only the rare case which does not respond to diet, irrigation, proper hygiene and the above topical therapy. There are a few patients who will require other types of topical treatment. These are usually the ones with the chronic lichenified dry pruritus. It is this group who probably are the best candidates for surgical treatment of their pruritus by the various undercutting operations which change the circulation of the skin and allow time for the skin to return to normal before the pruritus begins again.

Summary

I should like to again emphasize that the problem of anal pruritis is by no means solved. The treatment is usually prolonged and recurrences are frequent. When there are recurrences it is necessary for

* Coprane Lotion, Fuller Pharmaceutical Co.

the patient to return to the original treatment until the acute symptoms subside. It may even be necessary for the patient to give the perianal skin some special care as long as he lives. The surgical conditions which can contribute to pruritus should always be considered in the treatment of patients with this affliction. A good principle to follow is to give all patients a trial of conservative treatment before surgery is recommended. On the basis of certain experimental observation by others and some personal experience, a method of treatment of so-called primary pruritus has been briefly outlined.

1829 Medical Arts Building

"MEDICAL TEASERS"

A challenging crossword puzzle
for the physician
page 41a

Clinico-Pathological Conferences

New York University-Bellevue Medical Center Post-Graduate Medical School, Department Of Medicine at Bellevue Hospital, Fourth Medical (N. Y. U.) Division

PATIENT W. J. L.

This was the first B.H. admission of a 50-year-old white male, married policeman with a

CC: "Vomiting—2 months."

P.I.: Beginning 7 months prior to admission, the patient noted the onset of malaise, weakness, fatigability and anorexia. Associated, was a cough productive of clear mucus, no hemoptysis. Shortly afterward, he began to have severe headaches in the morning relieved by black coffee. He developed morning nausea and occasional vomiting approximately 2 months p.t.a.

Five weeks prior to admission, he was told of severe hypertension by a local physician and was admitted to a local hospital. Findings there included: BP 220/110, pale tongue, dry skin, moist rales in the lungs and bilateral, low grade papilledema. Retrograde pyelogram was normal and chest x-ray showed cardiac enlargement and pulmonary congestion. Urine specimens showed S.G. of 1.003-1.014 with marked albuminuria but no formed elements. Hemoglobin was 9.5 gms. Creatinine 5.5 mgm%, Protein with A/G 3.8/2.7, CO2 C.P. 47 Vol.%. He was placed on a low protein diet with normal CHO and Fat without sodium restriction. At the time of discharge, 2 weeks p.t.a., his Creatinine was 7.5 mgm.% and CO2 35 Vol.%. Papilledema had appeared to subside. Digitalization was completed with 2 mgm. Digoxin and a maintenance of 0.5 mgm. daily.

P.H.: No history of previous renal disease, heart disease, hypertension, tonsillitis, scarlet fever. No history of gonorrhea, syphilis.

R.O.S.: Epistaxis several times in week prior to admission. Exertional dyspnea for eight months, denies paroxysmal dyspnea, ankle edema, or angina.

Loose stools for about 5 weeks. Weight loss about 10 lbs.

Nocturia 2-3x. No other G.U. symptoms.

Social: Married—2 children, worked steadily until P.I. Smoked 7 cigars daily.

Physical Exam. T. 98.6, P. 80, R. 18,

B.P. 210/88, 208/92.

Confused, lethargic, pale, dehydrated male with a uremic breath.

Head: EENT: Sclerae pale, no icterus. Tongue dry and pale. Pupils, react l and a. Fundoscopic—Retina glairy. Bilateral blurring inferiorly. Vessels narrowed with marked A/V nicking. Flame-shaped hemorrhage bilaterally with hard exudate as well.

Neck: Veins flat. Thyroid normal.

Chest: Heart enlarged beyond the MCL in the 6 i.c.s. A2 accentuated and greater than P2. Sounds distinct. Basal and apical systolic murmurs heard. No rubs or gallop.

Lungs: Clear to p. and a.

Rectal: Prostate normal. Stool yellow, guaiac negative.

Trunk: No c.v.a. or sacral edema or tenderness.

Extremities: No edema or cyanosis. Pulses good.

Neuro: Equal and active D.T.R. Babinskis negative.

Hospital Course:

4/10: Vomiting profusely. 2,000 c.c. glucose in saline given i.v. Creatinine 12.4 CO2 23 m.e.

4/12: Vomiting. Blood 250 c.c. per day as well as glucose in saline. Sedation as phenobarbital added. Diarrhea marked.

4/13: Output 1150 cc. via kidneys. M/6 lactate used as indicated. Sodium 133.

4/21: The urine output has averaged 750 to 1000 c.c. daily. Creatinine 12 mgm%. Sodium 121 m.eq. Sodium chloride solution 2 liters per day being given as well as supplementary sodium lactate. B.P. had dropped to normal levels but was now 130/104.

4/23: I 131 given to attempt decrease in general metabolism. Creatinine 14 mgms. Urine output dropping to 575 c.c. daily.

4/25: Pericardial friction rub heard. Bilateral pleural effusion.

LABORATORY DATA

Urinalyses

Date	S.G.	pH	Alb.	Sug.	Acet.	Bile	WBC	RBC	Other
4/10	1.010	Alk.	300 mgm%				Many	Many	Granular, waxy and Fatty casts
4/21	1.010		250 mgm%				Many	Many	Granular, waxy and Fatty casts
5/1	1.010		400 mgms%				Clumps of WBC as well as RBC and Casts		

4/10 Hb. 8.5 RBC 2.9 WBC 10,500 TR 10 P. 81 ESR 63/hr. Hct. 26%
4/23 Hb. 10 RBC 3.7 Hct. 30%

Chemistries

4/10 NPN 180 CO_2 23 m.eq. A/G 5.1/1.8 Cholesterol 264 BUN 177 Na 139 K 5
Creatinine 12.4 Cl. 98 Ca 8.8
4/21 CO_2 15.1 m.eq. Na 121 K 3.7 Creat. 12.0
5/1 CO_2 21 Na 128 K 5.4 Creat. 21.6
Stools for blood negative.
Mazzini negative.
Urine culture—Diphtheroids.
Coomb's test negative.
E.K.G. 4/10 and 4/26—Changes of left ventricular hypertrophy with occasional PVC's.

4/30: B.P. 180/110. Patient restless and dyspneic.

5/1: Acute dyspnea, orthopnea and tachypnea. Pulse 160. Digitalization with slowing of pulse to 100. Creatinine 21 mgms.%, Na 128, K 5.4, COT 21 meq/1.

5/3: Patient expired suddenly after an attack of vomiting with cyanosis and dyspnea.

Case presented from the wards of the Fourth Medical Division, Bellevue Hospital, Dr. Charles Wilkinson, Dir.

Pathological Findings

At autopsy, the kidneys were moderately small (120 grams each) and finely nodular. Histologically, they were profoundly changed. Almost every glomerulus was partly or completely hyalinized. The few better preserved glomeruli showed marked thickening of Bowman's capsule and capillary basement membranes. Arterioles showed severe hyaline thickening; a few arterioles and portions of glomeruli showed frank necrosis, with fragmented nuclei and, in one or two instances, hemorrhage. There was general tubular atrophy and a mild acute and chronic inflammatory reaction. These are the changes of *malignant nephrosclerosis.*

The patient's heart was considerably hypertrophic (600 grams). He had fibrinous pericarditis, which is a not infrequent manifestation of uremia. The fact that some degree of heart failure was present was suggested by the finding of mild anasarca.

The clinical course—characterized by a progression from good health, with no knowledge of hypertension, to death in uremia eight months later—is that of *malignant hypertension.* About 10% of patients with essential hypertension die in uremia; not all of them, however, show the rapid progression of the "malignant" disease. In general, those who do not have clinically "malignant" disease fail to show the necrosis of renal arterioles found in this patient.

PATIENT R. D.

This was the first B.H. admission of a 59-year-old white female admitted 5/20 with a

C.C. "Gangrene of right foot"—1 week.

Previous Hospitalizations: Left lumbar sympathectomy—St. Vincent's Hospital. Age: 54.

P.I.: The patient had had diabetes for an unknown period of time (6 to 7 years) and had never taken insulin nor cooperated with physicians with respect to diet. Two weeks p.t.a., she stubbed her right foot and a week later it became

red and the great toe began to turn black. She then sought admission.

Review of Systems: Unobtainable except for vulvitis and frequency of urination for an unknown period. Three months before, she suddenly saw black in the left eye but this improved gradually until admission.

P.H.: Gr. xviii—Para—iv. Born in Italy. Weighed 240 lbs. until 2 years ago.

Physical Exam.: T. 101, P. 96, B.P. 198/92, Weight 140 lbs.
A w.d.w.n. white female in no acute distress.

Skin: Turgor poor. Warm and dry.

Head, E.E.N.T.: Pupils r.r.e., react 1 and a. Fundoscopic — left eye — Grade iv diabetic fundus. Marked retinal edema with loss of disc margins. Vessels are tortuous with new vessel growth. Two large, old intra-retinal hemorrhages are seen. Right eye—Small diabetic aneu-

LABORATORY DATA

Urinalyses

Date	Cath.	Color	S.G.	pH	Alb.	Sug.	Acet.	WBC	RBC	Other
5/20	No	Yellow	1.026	ac.	1+	4+	4	4-5	0	Much debris
5/31	Yes	Yellow	1.030	alk.	1	4	4	2-3	5-8	Bacteria
6/20	Yes	Cloudy	1.030	Alk.	1	4	0	4-5	5-8	Bacteria
7/11	Yes	Cloudy	1.020	Alk.	1	4	0	Many	4-5	

Cultures of the urine from the ureters and the bladder—B. Proteus, B. Pyocyaneus, Enterococcus —5/21, 6/21, 7/10.

Blood Counts

Date	FBS	NPN	CO_2	Chol/ Esters	BUN	Na	K	Creat.
5/21	395 mgm%				6.7			
6/2	287 "	14 mgm%	30 meq./l			129 meq./l	3.2 meq./l	
6/25	464		22 "					
7/2			23 "	100/37	22	133 "	3.5 "	
7/11	307		23 "					1.2 mgm%
7/14	169							

A/G on 7/2 3.5/2.9
Stool guaiac negative 7/2
B.S.P Test—7/8—16% retention—45 minutes
Insulin tolerance test—300 units of insulin I.V. 7/3—FBS—305 mgm%
45 min. 430
120 min. 435
Insulin glucose tol.—7 units of Insulin I.V. and 42 grams of glucose—7/15
FBS 352 mgm%
20" 462
50" 426
60" 424
Rabbit Test to demonstrate anti-insulin factor—
Rabbit A—Control serum plus insulin—5 u/kilo. 2 c.c. serum. Rabbit fasted 3 days.
Rabbit B—Patient's serum plus insulin—5 u/kilo. 4 c.c. serum.

	FBS	1"	5"	10"	15"	20"	45"	60"	65"	110"
A	77	90	98	92	70	65	59	39	36	(Developed convulsions, given Cho)
B	81	73	73	74	57	54	50	31	25	

X-Ray—Right thigh—6/25: Slight periosteitis involving stump of tibia. No sequestra. No gas bacillus infection.
Cystoscopy: 7/11—Cystitis—Cloudy urine in bladder (20 cc.). Retrograde Pyelograms done but not reported in chart.

rysms seen. Macula disc normal.

Lungs: Clear to P and A.

Heart: Not enlarged. Grade ii soft systolic murmur heard over precordium and transmitted to neck vessels.

Abdomen: No organs felt. Wall soft and contour flat.

Pelvic: Vulvae erythematous and edematous with yellow caseous exudate. No masses. Cervix normal. Uterus not enlarged.

Rectal: No masses. Feces brown.

Extremities: Right hallux and surrounding rim are dry and black. Entire foot edematous, red and warm with a 3 cm., circular black area over the dorsum. Erythema extends up the leg. A non-healed abrasion over the medial aspect of the left leg. Only the femoral pulses are present in the lower extremity.

Neurological: Physiological.

Hospital Course: The patient was placed on procaine penicillin 600,000 u bid and a medical consultant guided treatment for diabetic acidosis. During the first 24 hours she received 180 u of regular insulin, 3 liters of fluid including 2 liters of N/5 and 1 liter of 5% glucose in N/S. The acidosis did not clear for 24 hours. The fifth hospital day, a right mid-calf amputation with primary closure was performed. Immediately post-operatively, her diabetes became unmanageable and the pattern of management of the thirty-fifth hospital day is typical of most. On that day she received from 100 to 200 units of regular insulin every one to two hours for a total of 1600 units and was just able to clear the acetonuria while 4+ glycosuria persisted. Diet consisted of C180 to C200 when eating. Fluids averaged 200 c.c. daily and consisted of 5% glucose in water, in normal saline and M/6 lactate kel depending on the needs of the moment. Temperature hovered in the range of 101-102 daily with few exceptions. Penicillin was given throughout. Streptomycin 0.5 gms. bid was given the final month and neomycin 20,000 u i.m. q.6h. the final 3 days. The amputation stump became infected and sloughed out and she developed a large infected sacral decubital ulcer in addition to a large ulceration of the left leg. The patient appeared to be responding at times but progressively became weaker and sicker. About 1 week prior to demise (7/14), she developed what appeared to be hypoglycemic reaction with non-responsiveness, coldness and clamminess of the skin and rapid pulse. Blood sugar and a tolerance test were performed at the time. She subsequently required large doses of insulin again. Terminally, the patient became hypotensive (110/65), comatose and expired (7/20—60th hospital day). T. 104. Numerous rales in both lung bases.

Case presented from the wards of the Fourth Medical Division, Bellevue Hospital, Dr. Charles Wilkinson, Dir.

Pathological Findings

This patient died as a result of infection and uncontrollable diabetes. Infection of the amputation stump and of decubital ulcers was observed clinically.

In addition, lobular pneumonia and acute pyelonephritis were found at autopsy. Two of the pyramids in the right kidney showed in the gross sharply demarcated yellow areas—the characteristic change of "*necrotizing papillitis*." There are two distinct histological types of necrotizing papillitis. One resembles an infarct or gangrene; however, unlike the ordinary infarct, it is never associated with demonstrable vascular occlusion. Furthermore, renal infarcts resulting from thrombosis or embolization virtually always occur in the cortex. The pathogenesis of this lesion is quite unknown. The second type necrotizing papillitis resembles an abscess histologically, and is often associated with similar abscesses elsewhere in the kidney. Today's case was of the latter type. In contrast to the infarct-like lesions, there does not appear to be anything mysterious about the pathogenesis of this form of papillary necrosis; it is merely an abscess which, fortuitously, involves the papilla. What is unusual about both types of necrotizing papillitis is their high incidence in diabetics. Most patients with pyelonephritis have a demonstrable obstruction to renal outflow. This was not true in this case, and often is not so in diabetics; possibly the diabetes promotes bacterial infection in the kidneys as it does elsewhere (1, 2).

Many of the patient's islets of Langerhans showed varying degrees of hyalinization. This lesion is found in about half of the diabetics who come to autopsy. It is found much less commonly in non-diabetics.

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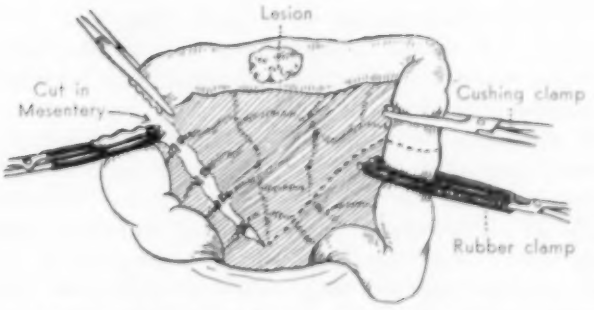
2. S. L. Robbins, G. K. Mallory, and T. D. Kinney: Necrotizing renal papillitis: a form of acute pyelonephritis. New Eng. J. Med. 235:885, 1946.

Clini-Clipping



Method of excising involved portion of bowel before making an intestinal anastomosis.

Volkmann's Ischemic Contracture

Volkmann's ischemic contracture is one of the most serious complications of injuries about the elbow. It is a cripping deformity of the hand and forearm that is due to circulatory interference. Anyone treating forearm injuries must be aware of the possibility of the development of this tragedy, and guard against it.

Etiology Two thirds of cases occur in patients under the age of thirty, the greatest incidence being between the ages of two and sixteen. Swelling inside tight casts and constricting dressings is responsible for most cases. The majority follow fractures about the elbow—particularly incompletely reduced supracondylar fractures of the humerus (the commonest extension fracture of childhood). Brachial artery occlusion may be produced by hematoma and/or direct bony pressure on the artery. Fractures of the humerus higher up the shaft, fractures of the bones of the forearm, and dislocation of the elbow are occasionally responsible.

Other rarer causes are: a. damage to the brachial or axillary artery from injuries other than fracture (e.g., gunshot wound, embolus, rupture, large hematoma, edema); b. subfascial hematoma due to rupture of an artery or hemophilia; c. trauma to the forearm (e.g., crush, cold exposure, prolonged pressure on the forearm while intoxicated, improper or prolonged use of a tourniquet or Esmarch bandage).

All of these causes produce reactive swelling in the closed flexor fascial compartment of the forearm (an inelastic fibrous box), with resultant ischemia of the muscles (Figure 1). Ischemia that persists for from six to forty-eight hours (depending upon its completeness) produces irreversible muscle damage with inevitable contracture. The flexor muscles are regularly involved, but swelling within a tight circular cast may affect the extensor muscle groups also.

Pathology After a period of ischemia, the muscles become indurated, tense, and dark blue (from extravasated blood and serum), and degeneration and necrosis of muscle fibers supervene. Within a few days, organization begins; the muscle fibers are replaced by fibrous tissue and the muscles become firm and adherent to the surrounding structures. Spasm may play a role in the ischemia, but this is probably of only secondary importance. Venous occlusion may also be a factor.

The flexor digitorum profundus and

sublimus, and the flexor pollicis longus, are usually more extensively affected than the pronator teres and carpal flexors. The median and ulnar nerves are also constricted and may undergo degeneration.

In time, the fibrous tissue contracts; the muscles shrink and harden, and the characteristic deformity is produced (Figure 2):

a. flexion of the wrist,
b. hyperextension of the metacarpophalangeal joints,
c. flexion of the interphalangeal joints, and
d. pronation of the forearm (usually).

Since there is variability in the intensity of the circulatory interference, cases vary in severity.

Early Signs and Symptoms The onset is usually sudden, but may be insidious. Early signs of ischemia develop within two to six hours. Symptoms are: a. a feeling of tightness of the cast or dressing, b. restlessness, c. burning pain (often severe) in the hand or forearm, d. tingling and numbness in the hand and fingers. Signs are: a. paralysis of the flexor muscles with inability to move the fingers, b. pain on attempted extension of the fingers, c. coolness and pallor (arterial insufficiency) or cyanosis (venous insufficiency) of the hand, d. diminution of the radial pulse, and e. hypesthesia of the fingers.

When the cast or constricting dressing is removed early, the forearm has a tendency to swell and become red, blebs appear, and pressure sores often develop.

After two days, the pain and signs of circulatory obstruction decrease. Later, a. the characteristic contracture develops, along with b. atrophy of the skin, hand muscles, and fingers, c. curvature of the nails, d. excessive cold sensitivity, e. diminished oscillometry and skin temperature readings. In about 60% of cases, glove anesthesia and paresthesias occur from nerve damage (median and ulnar). The end result is a crippled hand and forearm. In children, growth of the extremity is retarded.

Treatment

Prevention is the treatment of choice, and is almost always possible. Supracondylar humeral fractures must be correctly set early (Traction or operation may be required for this). Acute flexion of the elbow and pressure on the brachial vessels should be avoided. The antecubital space should be kept free inside a cast. Elevation of the extremity for several days following injury or operation is advisable.

Emergency Treatment, with the primary aim of restoring circulation, must be instituted as soon as the earliest signs or symptoms of vascular complication are recognized. Every injured arm should be examined every few hours for several days. If any symptoms or signs appear, immediate hospitalization is mandatory, and consultation with a specialist is advisable. a. All encircling dressings (especially in the antecubital area) are freed (circular casts are split full-length along the medial and lateral edges, and the two halves are separated.). b. The arm is elevated. c. If symptoms and signs are not promptly relieved, emergency operation is indicated. The flexor fascia is split over the length of the muscle bellies and allowed to gape. The vessels are freed. The skin is sutured to assure a closed wound. The fracture is

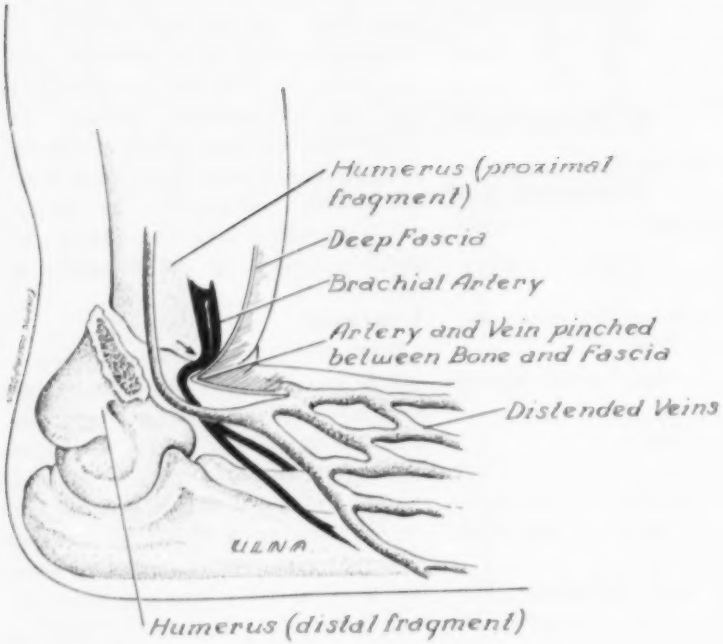


Figure 1. Schematic drawing showing the cause of Volkmann's Contracture in the case of un-reduced supracondylar fracture of the humerus. Posterior displacement of the forearm causes kinking of the brachial artery and veins between the bone and the deep fascia. Arterial flow to, and venous flow from the forearm are impeded. (Modified from Bunnell's "Surgery of the Hand")

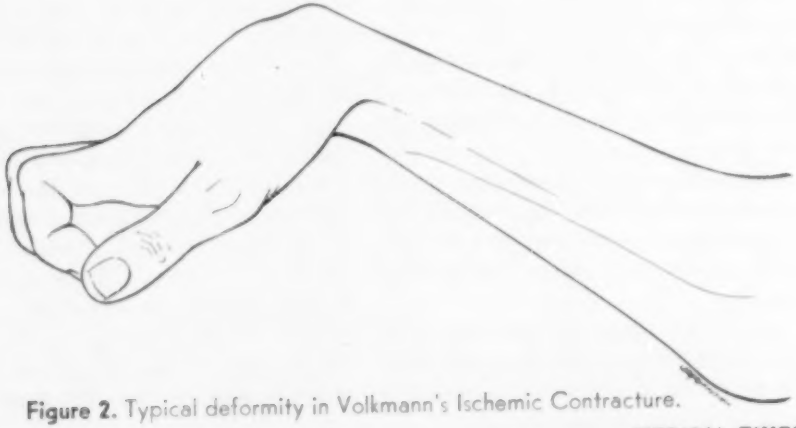


Figure 2. Typical deformity in Volkmann's Ischemic Contracture.

accurately set. Pressure sores are excised and grafted primarily. d. Repeated sympathetic blocks may be of value. e. The wrist and fingers are splinted in full extension and maintained in this position until the muscles have returned to normal.

Late Treatment: The difficulty of obtaining a good functional result after the contracture is established, points up the need for preventive treatment. a. Steady (not intermittent) spring or elastic traction to straighten the fingers should be used as long as some improvement is noted therefrom (several months). The traction appliances are removed three or four times daily for active and passive exercises. b. Sympathectomy is often helpful in relieving pain and improving the blood supply. c. Operative reconstruction is ultimately necessary. The flexor fascial compartment is opened fully, the septa are severed, the vessels freed, the fibrotic muscles excised, and the tendons freed and lengthened (This must be repeated with growth in children). The pronator teres and quadratus are severed if necessary to permit supination. The first row of carpal bones may require excision to provide relative lengthening of the tendons. Fusion of the wrist in 20° of dorsiflexion is sometimes indicated to take over the function of the three extensor carpi muscles so that they may be used for transfer.

Obviously, the reconstructive work is complex and requires considerable time and patience. No further word is necessary concerning the need for prevention of this tragic deformity.

EDITORIALS

Combatting the Fear Epidemic

We are heartened to note the efforts of the American Medical Association, given expression by Dr. George F. Lull, its general manager, and by such spokesmen as Dan Mellen, president of the Medical Society of the State of New York, to register the medical profession's reaction to the present epidemic of fear in this country—fear of atomic destruction, fear of cancer, fear of heart attacks, fear of thought, and fear of life and living in general. "Unless checked, this fear-complex may cause untold harm. As counselors, physicians have an excellent opportunity to combat this epidemic of fear. In the office, at the bedside, through health forums, radio programs, TV shows, and emergency services doctors can alleviate to a great extent fear of dreaded diseases and sudden sickness."

America's "Bloody Love Affair" with the Automobile

Bergen Evans, in his *The Spoor of Spooks and Other Nonsense* (1954, Knopf), thinks that about half the population becomes mildly paranoiac when driving a car; he calls this state, aptly, *auto*intoxication. Evans is appalled by the statistics of death and injury and the psychology involved frightens him.

Because of the medical profession's deep involvement in the repair of the legion of mutilated survivors, the nature of its reaction to the holocaust is an interesting study.

To judge from the hundreds of traffic deaths that occur every week-end one can only conclude that human life is valued at a very low point. Since this is also the viewpoint of savages we are justified in concluding that we are really not very civilized. It is in civilized countries that one would expect to find the individual's life properly valued.

We have had an opportunity to observe how Asiatic hordes can be led to the slaughter of war like sheep. Perhaps the rest of mankind are not so different as we are apt to think. In this connection development of the H-bomb in both Europe and the United

States is significant.

Is it a possibility that the selfish, egoistic and reckless elements in the population can in time be civilized while still young—rationally conditioned for a civilized life?

Time will tell.

Traumatic Cancer

Cancer due to trauma is so exceedingly rare that a litigant in the courts making such a condition a basis for a claim is likely to meet with considerable incredulity. However, it is a well attested fact that cancer, usually of sarcomatous character, can follow trauma. Lewy found 37 instances in 26,389 injuries and Leclerq 5 or 6 such tumors in 100,000 injuries.

Leonard S. Ellenbogen in the June, 1954 issue of *The Journal of the Medical Society of New Jersey* makes a careful examination of this matter and concludes that every care must be taken in alleged cases to avoid the possibility of rendering injustice to occasionally worthy claimants.

Ellenbogen quotes Shindell *(J.A.M.A.* 151:1078, 1953) as advising a pretrial board examination of the medical facts in a case by a panel composed of qualified physicians and attorneys, approved by the organized professions.

The basic fact is that trauma *can* cause cancer.

In medicolegal cases "conflicting medical testimony is baffling to the courts and to juries and should be evaluated by impartial experts." This points up the necessity for a permanent board of such experts, thus eliminating both bias and the mercenary element.

France Grapples with the Demon Rum

Steps somewhat reminiscent of America's Prohibition debauch have been adopted by the French cabinet. They require the approval of the National Assembly.

Alcoholism is a major problem in France. French per capita alcohol consumption is more than three times that in the United States and Britain. It is against the 15 per cent of hard liquor consumed that the new measures are directed. Of course the liquor trade is strongly resisting.

Taxes on hard liquor are to be increased by 20 per cent. Public drunkenness will be subject to heavy penalties. No liquor is to be sold between 5 and 10 A.M.—aimed chiefly at the worker's drinking of rum or brandy in his coffee on his way to work. Advertising liquor will be greatly restricted. The distiller will be subjected to rational control. Many bar licenses will be withheld. Of course there will be an educational campaign. The French press is supporting the new measures.

While this is not Prohibition in the American sense one can readily see where corruption will enter.

The outlook is not good in a France already bedeviled in many ways.

Italy and Russia have the same problem, while the people of the United Kingdom are anything but teetotalers.

OBSTETRICS

HARVEY B. MATTHEWS, M.D., F.A.C.S.*

The Intrinsic Fetal Mortality of Cesarean Section

H. W. Taylor and E. J. Ward *(American Journal of Obstetrics and Gynecology*, 65:1276, June 1953) report on the fetal mortality in 611 cesarean sections at the Philadelphia General Hospital, January 1, 1941 to December 31, 1950. As there were 5 sets of twins, the total number of babies delivered was 616; there was a "total fetal loss" of 14.4 per cent, 45 stillbirths and 44 neonatal deaths. In 352 of these cases of cesarean section, there was no maternal complication; the chief indications for the cesarean operation in these cases were previous section and cephalopelvic disproportion. The fetal mortality was 3.4 per cent; 12 neonatal deaths and no stillbirths; only one of these infants was full term, and death was due to congenital anomalies; in all other cases, the infants were premature, and the fetal mortality increased with the degree of prematurity. In all of these cases of prematurity, the patient had had a previous cesarean section, and in most cases the operation had been done before term either because of onset of uterine contractions or premature rupture of the membranes; in 3 cases no definite reason for section before term was given in the records. In the 259 cases (with 263 infants delivered), there was a total fetal mortality of 29.7 per cent, including 45 stillbirths and 32 neonatal deaths. In most cases the fetal death was related to the maternal complications and the indications for the cesarean operation; cases of intrauterine infection showed the highest fetal mortality, 61.1 per cent. In this group inadequacy of prenatal care was related to a high fetal mortality. These findings indicated that cesarean section involves little risk to the fetus at full term if there are no maternal complications. In cases of prematurity, the factors that are considered most important in the reduction of fetal mortality are prompt care of the infant by a pediatrician at the time of delivery by section and in the "newer pediatric techniques" for care of premature infants.

Matthews

Cephalic Version in Breech Presentation

J. Friedman *(Yale Journal of Biology and Medicine*, 25:517, June 1953) reports a study of 500 pregnant women, in 94 of whom (19 per cent) breech position was noted at some time during the pregnancy. In the earlier cases in this study, the fetal position was often

* Emeritus Professor of Obstetrics and Gynecology, State University of New York (State University Medical Center at New York City College of Medicine); Consultant in Obstetrics and Gynecology, Long Island College Hospital, Methodist Hospital and Lake Placid General Hospital; Diplomate of American Board of Obstetrics and Gynecology.

not determined until the thirty-second week of pregnancy; in some way breech positions in which spontaneous turning occurred were missed. Later in the series, the fetal position was determined from the twenty-eighth week to term; in this group, the breech position was found at some time in 23 per cent. External cephalic version was done in 60 cases; in 43 of these cases, the fetus remained in the vertex position; in 17 cases the fetus returned to the breech position and external cephalic version was repeated as often as necessary so that all infants were in vertex presentation at the time of delivery. If the reversion to the breech position occurred, it usually occurred soon after the external version had been done. Spontaneous cephalic version occurred in 34 cases in this series, in 2 cases after an attempt at external version had failed. In this group there were only 2 reversions to the breech position and in both of these external version was done successfully. In 43 cases, spontaneous podalic version occurred, usually after external cephalic version had been done, spontaneous podalic version following external cephalic version in 25 to 30 per cent, showing a much higher incidence after external version than in cases in which this procedure was not employed. There were only 2 breech deliveries in this series, one a premature infant that survived, the other a hydrocephalic monster; cesarean section was done on special indications in 2 cases, although the infant was in normal presentation. All the infants delivered after external cephalic version were born alive; one died two days after delivery, death being due to multiple congenital anomalies. There were no maternal complications, such as excessive bleeding or rupture of the membranes, that could be attributed to the procedure of external cephalic version. The best time for this procedure was found to be in the thirty-second to thirty-fourth week of pregnancy.

Extra-uterine Pregnancy at Term

G. W. Gustafson and associates (*Obstetrics and Gynecology*, 2:15, July 1953) report a case of tubal pregnancy at term in which a living child was delivered and the mother survived; this they find to be the sixth case of this type reported with survival of both mother and infant. In this case, the diagnosis of extra-uterine pregnancy was not made until the abdomen was opened; at about the seventh month of pregnancy the child was found to be in breech presentation, but "very gentle" attemps at external version were unsuccessful; a roentgenogram did not indicate that the fetus was outside the uterus. Cesarean section was considered to be indicated because of a "borderline pelvis" and the breech presentation. The sac was thicker than in abdominal pregnancies previously observed; on opening the sac, it was found that the placenta was entirely within the sac, and could be removed without danger of hemorrhage. The diagnosis of tubal pregnancy was based on the fact that the placenta was entirely within the sac and that the sac wall showed muscle fibers and lining cells as in the fallopian tube. A hysterosalpingogram four months later showed "surgical amputation" of the right tube with normal left tube. The authors emphasize the importance of determining whether or not the placenta is entirely within the sac in extra-uterine preg-

nancies at or near term; if the placenta is outside the sac, it must be left to absorb or be removed later, because of the danger of hemorrhage. If it is entirely within the sac, as in the case reported, placenta and sac can be removed safely.

Pregnancy and Multiple Sclerosis

W. J. Sweeney (*American Journal of Obstetrics and Gynecology*, 66:124, July 1953) reports a study of 22 patients with multiple sclerosis studied at the New York Lying In Hospital; 16 of these patients were multigravidas and 6 primigravidas. These patients had a total of 52 pregnancies with 36 infants delivered (full-term or premature); there were 11 spontaneous abortions, one induced and 4 therapeutic abortions. In 13 of these patients, the onset of the symptoms of multiple sclerosis occurred before the first pregnancy; in 6 after one or more pregnancies, and in 3 during a pregnancy. In 17 patients, the pregnancy had no effect on the symptoms of multiple sclerosis, although 2 of these patients "felt improved" during pregnancy; 12 had exacerbations of the disease, not related to any pregnancy; in 5 cases the onset or an exacerbation of multiple sclerosis occurred during a pregnancy, but 4 of these patients also had exacerbations without relation to pregnancy, and 3 had other pregnancies without exacerbations of the multiple sclerosis. As multiple sclerosis is characterized by exacerbations and remissions, no evidence was found in these cases that pregnancy has any effect on "the ultimate course of the disease." In the patients who were delivered at term or prematurely, the labors and deliveries were normal, and there was no evidence that multiple sclerosis had any ill effect on the pregnancy. In the 4 cases in which therapeutic abortion was done for multiple sclerosis, the disease followed its usual course in 3 cases; and the author is of the opinion that therapeutic abortion is not indicated in patients with multiple sclerosis.

Pregnancy and Healed Subacute Bacterial Endocarditis

Paul Pedowitz and L. M. Hellman (*American Journal of Obstetrics and Gynecology*, 66:294, Aug. 1953) report 120 cases of pregnancy in women with healed subacute bacterial endocarditis, collected through a questionnaire sent to various large hospitals and a review of the literature; in 85 cases pregnancy occurred after the endocarditis had been treated, and in 35 cases pregnancy was complicated by subacute bacterial endocarditis, which was treated and cured during pregnancy. In this series of cases, there were 4 spontaneous abortions and 14 therapeutic abortions; in 102 cases a viable infant was delivered, with 3 infant deaths, a fetal loss of 2.9 per cent. There were 3 maternal deaths in the 85 cases in which pregnancy occurred after the cure of the bacterial endocarditis, a maternal mortality of 3.5 per cent, but in the group in which the endocarditis occurred during pregnancy the maternal mortality rate was 14.2; for the entire series the maternal mortality was 6.6 per cent. Of the 6 women in this series who became pregnant during the first six months after the cure of the bacterial endocarditis, 4 had a therapeutic abortion performed because the cardiac reserve was not satisfactorily stabilized; of the 2 who went

to term, one died due to cardiac failure and the recurrence of infection during the puerperium. On the basis of these findings the authors conclude that in cases in which pregnancy occurs within six months after clinical cure of subacute bacterial endocarditis, therapeutic abortion, without tubal ligation, is indicated. If pregnancy occurs more than six months after clinical cure of subacute bacterial endocarditis, a critical evaluation of the cardiac lesion and function is necessary to determine whether the pregnancy should be terminated; with adequate prenatal care, the cardiac condition in these cases is not *per se* a contraindication to pregnancy. In the cases in which subacute bacterial endocarditis occurs during pregnancy, early diagnosis and immediate initiation of intensive antibiotic therapy are important; if cardiac failure occurs, the patient should be hospitalized for the rest of her pregnancy, even if the subacute bacterial endocarditis is clinically cured. As subacute bacterial endocarditis is apt to recur or to occur in patients with heart disease in the puerperium, the authors advocate "prophylactic antibiotic therapy" begun at the onset of labor and continued postpartum in all women with cardiac disease.

The Foetal Risk in Breech Presentation

Doreen Duley and A. M. Michael (*Journal of Obstetrics and Gynecology of the British Empire*, 60:492, Aug. 1953) report a series of 498 cases in which the infant was in breech presentation at the time of labor; the "overall" fetal mortality was 13.1 per cent; there was no maternal death. Cesarean section was done in 33 cases (66 per cent) but in all but 4 of these cases the operation was done because of some associated complication. In 231 uncomplicated cases in which vaginal delivery was done, the fetal mortality was only 2.6 per cent. The management in these cases was "essentially conservative." While in the management of breech deliveries, elective cesarean section may be done only for very large infants or some associated complication, the authors suggest that if cesarean section were done because of fetal distress with prolapse of the cord or in the more severe degrees of uterine inertia, the fetal mortality in breech presentations might be reduced still further.

Classification of Human Pregnancy Based on Depth of Intra-uterine Implantation of the Ovum

Richard Torpin (*American Journal of Obstetrics and Gynecology*, 66:791, Oct. 1953) reports a study of the depth of implantation of the ovum in human pregnancies, and its relation to the termination of pregnancy and the characteristics of the placenta at term. He finds four types of implantation. In type 1, the implantation is very superficial so that maternal blood nutrition is not adequate and abortion often occurs within a few days, being mistaken for a missed period. In type 2, the implantation is sufficiently deep so that living active chorionic villi form a placenta; this type of implantation is found in approximately 75 per cent of pregnancies that are normal and go to term; in these cases the placenta at term is discoid and shows no disruption at the margin. In type 3, the im-

plantation of the ovum is deeper than in type 2, nearly one-half the villi acquire maternal blood supply, and the placenta covers over 25 per cent but less than 50 per cent of the ovular sac; this results in the formation of the marginate type of placenta. In type 4, which is observed less frequently, more than one-half the villi acquire adequate maternal blood nutrition and the early placenta covers more than 50 per cent of the ovular sac; this results in the formation of the circumvallate type of placenta, and is often seen in three or four month abortions. In very rare cases the ovular sac may be entirely covered with the early placenta—placenta membranacea; in 17,000 labors and "their attendant number of abortions," the author states that he has never found a placenta membranacea. He suggests that varying degrees of endometrial hyperplasia may influence the depth of implantation and the resulting placental abnormalities; but further study is necessary to establish this hypothesis.

Vaginal Delivery Following Cesarean Section

J. R. Harris, Jr. (*American Journal of Obstetrics and Gynecology*, 66:1191, Dec. 1953) presents statistics in regard to vaginal delivery following cesarean section in a general hospital in a rural community. In 1946 to 1948 the percentage of cesarean sections varied from 3.5 to 5.5 per cent of all deliveries; only one patient was delivered vaginally after a previous cesarean section in this period. In 1949 to 1951, however, careful selection of cases made it possible to deliver 18 patients vaginally who had previously had cesarean section; there was no uterine rupture and no fetal or maternal deaths in this group; the infants' birth weight varied from 6 pounds 1 ounce to 9 pounds 4 ounces. In this period the incidence of cesarean sections was definitely reduced as compared with the previous three years, varying from 0.2 to 1.7 per cent of all deliveries. In some cases in which the indication for cesarean section is "absolute", i.e., contracted or distorted pelvis, there is no possibility of subsequent vaginal delivery. But in some cases cesarean section is done because of a condition that is temporary and "modifiable," or the indication was erroneous or "poorly advised." In such cases, the possibility of subsequent vaginal delivery should be considered, but patients must be carefully selected on the basis of their history and general physical condition and the technical ability of the surgeon performing the cesarean section. Factors that are in favor of a trial of labor in selected cases include an anterior cephalic presentation, early engagement of the part presenting, and beginning of effacement of the cervix.

Intravenous Pitocin and Conduction Anesthesia

A. Shulman and W. J. Ratzan (*Obstetrics and Gynecology*, 3:71, Jan. 1954) report the use of intravenous infusion of Pitocin and saddle block or caudal (conduction) anesthesia in 150 deliveries; with this method the incidence of occiput posterior and occiput transverse positions was only 4 per cent. The usually increased incidence of occiput posterior and occiput transverse position with saddle block or caudal anesthesia is attributed to the fact that this type of anesthesia results in abdominal and perineal relaxation with temporary diminution or possibly

temporary cessation of uterine contractions. Pitocin "acts directly on the myometrium" so that there is no impairment of uterine contraction, which aids the conversion of an abnormal position to a normal one, and also shortens the duration of labor. Pitocin is not administered before the engagement of the fetal head, and the infusion may be continued for an hour of full cervical dilation. In the 150 cases in which Pitocin intravenous infusion was combined with saddle block or caudal anesthesia, the average duration of the first and second stages of labor was four hours in multiparas and six and a half hours in primiparas. The incidence of occiput posterior and occiput transverse positions was only 4 per cent, as noted above. Forceps were used in 148 cases, but in 138 only low forceps were used, low-mid forceps in 7 cases, and mid forceps in 3 cases; this represents "a considerable reduction" in the use of forceps "above the magnitude of low forceps" with conduction anesthesia.

Prevention of Abortion

E. F. Peña (*American Journal of Surgery*, 87:95, Jan. 1954) reports the treatment of 90 pregnant women, who had had one or more previous abortions or miscarriages, 20 other multiparas and 90 primaparas, with daily doses of stilbestrol combined with vitamin B factors and vitamin C in Desplex tablets (containing micronized stilbestrol). In the patients with a history of previous abortion or miscarriage, the dosage was determined according to the number of previous miscarriages and the period of pregnancy in which miscarriage took place. The dose was increased at the period when it was calculated menstruation would have occurred; if there were symptoms of threatening abortion or miscarriage —cramps or staining, backache, etc.— the dose of Desplex was increased or was supplemented by intramuscular injection of Bio-des (micronized stilbestrol in sesame oil). The intramuscular injections were used in 10 patients. The primaparas and the multiparas without a history of abortion or miscarriage were given Desplex in a dosage of 25 mg. daily for the second to the fourth month of pregnancy; 50 mg. daily from the fourth to the sixth month and 75 mg. daily from the sixth month to term. The Desplex tablets, containing vitamins B and C in addition to micronized stilbestrol, were well tolerated and did not cause nausea and vomiting so often observed with stilbestrol without vitamin supplements. There were only 2 abortions in the 200 pregnant women in this series, both occurring in patients with a history of previous abortions or miscarriages.

Megaloblastic Anemia of Pregnancy

J. P. Clarke and L. L. Essig (*American Journal of Obstetrics and Gynecology*, 67:367, Feb. 1954) report 3 cases of megaloblastic anemia of pregnancy observed in the past two years; this type of anemia is of rare occurrence in the United States, being more frequently reported in Great Britain. Megaloblastic anemia occurs most frequently in the third semester of pregnancy but may develop earlier in pregnancy. Soreness of the mouth and tongue is a frequent symptom and was observed in 2 of the authors' 3 patients; the patients also complained of weakness and fatigue. If anemia develops during preg-

nancy and does not respond to iron therapy, the presence of primary megaloblastic anemia should be suspected. Diagnosis is confirmed by study of the blood, which shows an anemia with macrocytosis of the red cells, and sternal bone marrow puncture, which shows an increase of megaloblasts. Liver extract and vitamin B_{12} are not effective in this type of anemia, but folic acid is effective; while folic acid may be given intramuscularly it is equally effective when given by mouth in a dosage of 10 to 20 mg. daily; this produces a prompt reticulocyte response, followed by an increased red cell count and relief of symptoms. Premature delivery occurred in 2 of the authors' 3 patients, and is frequently reported by others in patients with this type of anemia; but no increase in the incidence of stillbirths or congenital abnormalities has been noted in these cases.

Toxemia and Fetal Survival

K. C. McGuire and associates (*Obstetrics and Gynecology*, 3:195, Feb. 1954) report a study of 750 patients with various types of toxemia of pregnancy, of whom 455 were preeclamptic, 44 were eclamptic and 239 showed hypertensive vascular disease. A study of the fetal survival in the patients with preeclampsia showed "no significant difference" in the fetal loss whether labor was induced or the patient delivered spontaneously. It was observed, however, that in the group in which labor was induced, the average period of observation in the hospital prior to delivery was 9.5 days, while in those who went into labor spontaneously it was 6.3 days. This indicated, in the authors' opinion, that they had been "too conservative" in induction of labor in these cases, while "nature often solved the problem" by spontaneous termination of the pregnancy. In the hypertensive vascular group with superimposed toxemia the fetal loss was somewhat higher in those who delivered spontaneously than in those in whom labor was induced. Since January 1953 labor has been induced in patients with severe preeclampsia, if there is no dramatic improvement in their condition within three days after admission to the hospital. In the first five months of this period there were 23 patients with toxemia of pregnancy, including 18 with preeclampsia; labor was induced in 9 of these 18 cases, in 5 of which the infants were premature (weighing 1555 to 2300 Gm.), and all survived. These observations suggest that early termination of pregnancy in severe preeclampsia will increase fetal salvage but "further study of this problem is indicated."

GYNECOLOGY

HARVEY B. MATTHEWS, M.D., F.A.C.S.

The Diagnosis of Ovarian Cancer

L. J. Golub (*American Journal of Obstetrics and Gynecology*, 66:169, July 1953) reports a study of 210 pa-

tients with ovarian cancer from the records of the Philadelphia Committee for the Study of Pelvic Cancer; 60.6 per cent of the women were between forty and sixty years of age and 20.9 per cent were over sixty; 129 of these patients had passed the menopause and 84 were premenopausal; in 5 the menstrual status was not recorded. In 196 women in whom the record of pregnancies was complete, the percentage of women who had not had children or who had had only one child was 60.6 per cent, which was much higher than in control groups of gynecological office or hospital patients. The most common symptom of the ovarian carcinoma in these cases was rapid increase in the size of the abdomen due either to ascites or growth of the tumor or both; in 74 patients this was the presenting symptom; abdominal pain and abnormal uterine bleeding were next in frequency; gastrointestinal symptoms other than abdominal pain were noted in 38 patients and were the presenting symptoms in 20 instances. There is evidently "no characteristic pattern" of symptoms that suggests the diagnosis of ovarian carcinoma. It is important that every abdominal examination should include a search for free fluid; if fluid is found it should be evacuated by a small incision; cytologic examination of the ascitic fluid should be done as this may show the presence of malignant cells; this was rarely done in the series of cases reported. The most serious factors in delaying the diagnosis of ovarian carcinoma is failure of the patient to report for periodic examinations or to seek medical advice at the first onset of even slight symptoms, and the failure of the physician to make a thorough examination including pelvic, rectal and speculum examinations, on patients coming for general examination or with slight symptoms. Of 75 patients who did report promptly at the onset of symptoms, 41 were found to be inoperable, showing that ovarian carcinoma may be "insidiously silent" and that periodical pelvic examinations are indicated. At the time of operation pathological examination of frozen sections should be done to determine if a growth is malignant and radical operation is indicated.

Treatment of Symptomatic Leucorrhea with a New Preparation

John Rock and J. M. Nauss (*American Practitioner and Digest of Treatment*, 4:382, June 1953) report the use of a new preparation (Pro-Hygin), the specific component of which is benzalkonium chloride, in the treatment of "symptomatic leukorrhea," in cases in which the specific cause cannot always be easily determined. This preparation is available in both liquid and a powder form, either of which is employed in water as a vaginal douche. The liquid preparation was used in the treatment of 87 patients, in 18 of whom the leukorrhea was known to be caused by *Trichomonas vaginalis;* and the powder was used in 24 patients, in 8 of whom trichomonads were found in the vaginal discharge; 2 patients were treated with both the liquid and the powder. The treatment gave permanent symptomatic relief in 48.7 per cent of these patients, which in most cases was obtained "fairly" promptly. In another 28.3 per cent, relief of symptoms was temporary, but could be maintained by repeated treatments. Thus favorable results were obtained in 77 per cent of

the patients treated with this preparation. In the remaining 23 per cent, "differential diagnosis with more specific treatment" was necessary.

Vaginitis Treated with Medicated Jelly Using Disposable Applicators

E. N. Brand (*Journal of Obstetrics and Gynæcology of the British Empire*, 60:547, Aug. 1953) reports the treatment of 58 out-patients for vaginal discharge with ethyl cellulose jelly containing various medicaments, applied with syringe-type paper applicators. The type of medication used depended upon the results of examination of the vaginal discharge in each case. Chlorphenesin was used in trichomonas and monilia infections, gentian violet was also used in monilia infections, and proflavine in non-specific infections. Each patient was instructed to apply the jelly in the vagina with an applicator on alternate nights for three successive weeks, omit treatment for one week and then attend the clinic for examination. As applicators were "disposable," patients were instructed to use each applicator only once, enough being given each patient for the treatments prescribed. In 58 cases in which the medicatel jelly was used according to these instructions, the vaginitis cleared up in 47 cases; the treatment was especially effective in chronic trichomonas vaginitis (15 cases). The author is of the opinion that the good results were due to "the prolonged retention of the jelly" (for forty-eight hours on each application).

Uterine Fibromyomas

R. W. Irwin (*Surgery, Gynecology and Obstetrics*, 97: 702, Dec. 1953) discusses a series of 632 cases of uterine fibromyoma from the records of the Winnipeg General Hospital, Winnipeg, Canada; in all but 14 of these cases, the tumors were removed at operation. The most common symptoms were vaginal discharge (leukorrhea or excess bleeding), pain and pressure symptoms. The excess bleeding was in the form of metrorrhagia in most cases. Pain was the most common indication for operation. Pressure symptoms, such as nocturia, urinary frequency, hemorrhoids, constipation and varicose veins, are of common occurrence in women in the same age period as the patients with fibromyomas and could not always be attributed to the presence of fibromyomas. Hemoglobin determinations were necessary for the diagnosis of anemia; there were only 9 cases in which the anemia could be definitely attributed to excessive vaginal bleeding, although the anemia was of the iron deficiency type and could usually be corrected by increased intake of iron. The occurrence and severity of symptoms could not be correlated with the size or the site of the fibromyomas. Myomectomy was done in 82 cases, chiefly in patients in the child-bearing age; this type of operation showed the highest incidence of postoperative complications (3.7 per cent). Vaginal hysterectomy was rarely done. Subtotal hysterectomy and total hysterectomy were the most frequent operations in this series; the percentage of postoperative complications was less following subtotal hysterectomy, and the only postoperative death occurred after total hysterectomy. However, during the period of 1944 to 1952, 23 cases of carcinoma of the cervical stump have been found at this hospital after subtotal hysterectomy; this indi-

cates that in spite of the slightly greater surgical risk, total hysterectomy is the operation of choice when hysterectomy is indicated. Two hundred and seventy-eight oophorectomies were done in this series, including bilateral oophorectomy in 71 cases; in the author's opinion, this is "far in excess of the pathology found." Various types of degeneration of fibromyomas were found in 71 cases; sarcoma was found to arise from fibromyoma in only 2 cases.

Pathologic Diagnosis in and Bases for One Thousand Hysterectomies

M. C. Wheelock and Anthony Pizzo (*A. M. A. Archives of Surgery* 67:920, Dec. 1953) report the pathological findings in 1000 hysterectomies, all but 70 of which were total hysterectomies. Some specific pathological change was found in all but 43 of these 1000 cases. While chronic cervicitis was a frequent pathological finding (in 700 cases), it was not considered the basis for operative removal of the uterus in any case. Leiomyomas, including fibromyomas, fibroids and myomas were found in 697 cases, and were considered to be the basis for operative removal in 446 cases; pelvic inflammatory disease was found in 162 cases, and was the basis for operation in 76 cases; carcinoma of corpus was found in 36 cases, malignant tumor of the ovary in 14 cases; and carcinoma of the cervix in 6 cases; in all these cases the malignant tumor was the anatomic basis for hysterectomy. Endometriosis was found in 97 cases, and in 89 of these cases was the basis for operation. Atypical endometrial hyperplasia was found in 61 cases and polyp of the endometrium in 30 cases. The authors' analysis of this series of 1000 hysterectomies was based on the pathological findings and from these findings they selected "the single main diagnosis" which in their opinion as pathologists "suggested the need of surgical excision."

A Study of Cervices Removed at Total Hysterectomy for Benign Disease

R. H. Wesley (*American Journal of Obstetrics and Gynecology*, 67:293, Feb. 1954) reports 800 cases in which total abdominal hysterectomy was done because of benign disease of the uterus. In these 800 cases more than one lesion was found in the body of the uterus and the adnexa. Examination of the cervices in those cases showed that the cervix was histologically normal in only 291 cases, or 36.4 per cent. In the remaining 509 cases, or 63.6 per cent, some definite histological lesion of the cervix was present; the most common finding was chronic cervicitis in 273 cases; intra-epithelial carcinoma was found in only 3 cases; but basal cell hypertrophy, which is regarded by many as a very early stage of cervical carcinoma, was found in 21 cases. Benign polyps, which would undoubtedly cause bleeding, were present in 24 cases. Apart from the possible danger of carcinoma in the cervical stump, the presence of a diseased cervical stump, without malignancy, such as was found in such a large percentage of these cases, would undoubtedly produce serious pelvic symptoms. Hence the findings in this series of cases support the contention that subtotal hysterectomy should rarely be done, and that total hysterectomy is the operation of choice.

PEDIATRICS

JOHN T. BARRETT, M.D.*

Intramuscular Terramycin: Laboratory and Clinical Studies in Children

Charles O'Regan and Sigmund Schwarzer (*Journal of Pediatrics*, 44: 172, February 1954) report the treatment of 45 children with various infections with Terramycin given by intramuscular injection; 13 of these children were less than one year of age; 21 between one and five years of age; and 11 between five and thirteen years. In 27 cases the injections of Terramycin were given at twenty-four hour intervals, in 17 cases at twelve hour intervals; and in one case at six hour intervals. The dosage, calculated on the basis of age, type of infection and severity of the illness varied from 6 to 60 mg. per kg. body weight in twenty-four hours. The dose did not exceed 12½ mg. per kg. in twenty-four hours in the majority (70 per cent) of the cases. Of the 45 patients treated, 41 were cured, one showed slight improvement, and 3 no favorable response. Of the 3 patients who failed to respond to Terramycin, one had a *Hemophilus influenzae* infection (acute tonsillitis) and 2 had a *Staphylococcus aureus hemolyticus* infection (bronchopneumonia in one, and patent ductus arteriosus in the other). Sensitivity tests of these microorganisms showed them to be resistant to Terramycin. Other cases with *Staphylococcus aureus hemolyticus* infection responded well to the Terramycin treatment, including cases of bronchitis and acute pharyngitis and tonsillitis. Five of the patients who were cured with Terramycin had been treated with other antibiotics before admission to the hospital without showing improvement. One case of severe septicemia in an infant sixteen days old was cured, improvement being evident after the first injection of Terramycin. Studies of the serum concentration of Terramycin given by intramuscular injection in children, showed that "a therapeutic level" of the antibiotic was obtained and maintained for twenty-four hours with a dosage of 6 mg. per lb, or 12½ mg. per kg. body weight per twenty-four hours, indicating that intravenous injection is "not essential." Some types of infection, e.g. genitourinary infections due to *E. coli* or *Proteus vulgaris*, require higher dosage; and in "desperately ill" patients higher dosages should be used at first, and given at twelve-hour intervals. As a rule injections at twenty-four hour intervals are effective, and cause less local irritation than injections at twelve-hour intervals. The authors are of the opinion that the intramuscular administra-

Barrett

* Active Staff, R. I. Hospital, Providence Lying-In Hospital, C. V. Chapin Hospital, Pawtucket Memorial Hospital; Consulting Staff, Westerly Hospital.

tion of Terramycin is of special value in acute infections in infants and young children who cannot take the drug by mouth, and when intravenous injection "presents technical difficulties."

COMMENT

With the refinement of these newer antibiotics parenteral administration is possible and, of course, helpful and even essential in healing the severely ill child. There seems to be no argument with the mode of administration. We certainly can't expect intramuscular antibiotics to be effective in resistant cases, however.

J.T.B.

Hydrocortisone Ointment in the Treatment of Infantile Eczema

V. H. Witten and associates (*A. M. A. American Journal of Diseases of Children*, 87:298, March 1954) report the use of hydrocortisone ointment in 30 cases of infantile eczema. In all these cases, the hydrocortisone free alcohol ointment was applied to the lesions in the right side of the body, and the same ointment without hydrocortisone to the lesions on the left side of the body. There was definite improvement in 18 or 67 per cent of the children treated by this method; in these cases some improvement was evident within a week after beginning treatment. In 14 of the 18 patients showing improvement, there was some improvement in the lesions on both sides of the body but the lesions on the side treated with the hydrocortisone ointment showed a "definitely greater" improvement in 14 of these 18 cases. In 3 cases the lesions on the side treated with the hydrocortisone ointment were almost completely cleared, but those on the side treated with the control ointment showed no improvement. In 5 cases there was no improvement on either side of the body. There was no case in which intolerance to the hydrocortisone ointment developed. In none of these cases has the treatment been discontinued for a sufficiently long period to determine if and when a relapse would occur; in some cases in which improvement was obtained, this has been maintained by a "reduced schedule" for the use of the hydrocortisone ointment. On the basis of these results, the authors conclude that in the majority of cases of infantile eczema, hydrocortisone ointment is "the simplest, cleanest, and most rapidly effective of all topical measures employed."

COMMENT

We agree that this type of medication is at times extremely valuable in treating infantile eczema. It should be pointed out, however, that elimination of offending foods and avoidance of other allergens as well as the usual adjuvant treatment must not be forgotten.

J.T.B.

Salmonellosis in Children

E. F. Rabe (*Pediatrics*, 13:247, March 1954) reports 12 cases of Salmonellosis in children seen in eighteen months in Danville, Pennsylvania. In 7 of these cases, the clinical syndrome was that of septicemia, with fluctuating fever and toxicity; only one of these patients showed the "characteristic" symptoms of salmonella septicemia—bradycardia, leukopenia, splenic tumor and macular or petechial rash. While enteritis is usually the most common manifestation of Salmonellosis, only 2 of the children in this series showed enteritis as the "presenting complaint"; bronchitis was the presenting symptom in another 2 cases. In one case, there was a chronic pyelonephritis, an uncommon manifestation of salmonella infection, although such cases have occasionally been reported. While the organisms were isolated from the blood

in cases of septicemia, they were not found in the anal swab in 6 of these cases. Because of this difficulty in the diagnosis of salmonella septicemia, the serum agglutination test has been used in diagnosis, but this also gives uncertain results unless a wide "antigenic spectrum" is used; the antigen should be a "universal" antigen, including "almost all types of salmonellae" recovered in the United States. Various antibiotics were found of value in the treatment of Salmonellosis in children, especially Chloramphenicol in the author's series. However, in spite of the relief of symptoms by antibiotic therapy, 4 of the children in this series remain asymptomatic intestinal carriers of salmonellae: 3 of these children are less than eight months of age, but one is twelve years of age.

COMMENT

Salmonella infection can be quite a problem in children as witness the recent epidemic due to contaminated dried egg yolks. The variety of symptoms, not usually conforming to the general impression of salmonellosis makes the diagnosis difficult and laboratory help is essential. We have found, also, that Chloramphenicol is by far the most valuable drug in the treatment of this condition. J.T.B.

Treatment of Diarrhea with Combined Aureomycin and Triple Sulfonamides (Aureomagna)

A. M. Hand and associates (*Journal of Pediatrics*, 44:407, April 1954) report the use of a combination of Aureomycin and triple sulfonamides in a liquid preparation, Aureomagna, in the treatment of 30 cases of diarrhea in infants and children. Results were compared with a control group of 40 cases in which the general treatment and the use of parenteral fluid therapy were the same, but other antibiotics and chemotherapeutic agents were used. The dosage of Aureomagna employed was calculated to give 12.5 mg. of Aureomycin and 50 mg. of triple sulfonamides per kg. body weight in twenty-four hours; this dosage, the authors note, is "in the lower range generally recognized as therapeutically effective for these agents singly." The group treated with Aureomagna was comparable to the control group in age, severity of the diarrhea, and nature of the infection. In this series, the reversal of positive stool cultures was more rapid; therapy and period of hospitalization was shortened in the Aureomagna treated group as compared to the control group. No untoward effect of Aureomagna was observed clinically, and laboratory studies showed no alteration in the hemogram and no evidence of renal damage. In some cases in both groups, no infecting microorganism was isolated from the stools; as a rule *Sh. paradysenteriae* was the infectious agent. Aureomagna gave better results than the other drugs employed in the control group in both *Sh. paradysenteriae* infections and in cases in which the etiology is unknown. It was also effective in preventing secondary infections, except in one case.

COMMENT

This seems like a perfectly adequate method of treating the infectious diarrheas in infancy and childhood. Primarily directed towards the infectious gastroenteritis, it might well be effective in parenteral diarrheas also. J.T.B.

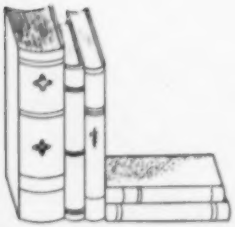
Intelligence Quotient of Children Recovering from Erythroblastosis Fetalis Since the Introduction of Exchange Transfusion

Richard Day and M. S. Haines (*Pediatrics* 13:333, April 1954) report a determination of the intelligence quo-

tient (Stanford-Binet test) of 68 children who had had erythroblastosis fetalis in 1947 to 1951, a period when exchange transfusions were being used in treatment. As a control 68 siblings who had not had the disease were used; thus the control group had the same hereditary and environmental background. The average I.Q. for the 68 patients was 106.51, 6.13 less than the average for the controls which was 112.64; thus the depression of I.Q. in the children who had had erythroblastosis fetalis was "comfortingly" slight, but was of some statistical significance. Of the 68 patients, 41 had been treated by exchange transfusions and 27 by small transfusions; the average deficit in the I.Q. of the 41 patients treated by exchange transfusion was 5.7 as compared with the controls, while the deficit in the I.Q. of the other 27 patients was 6.7. Patients who had been severely jaundiced and those with severe anemia showed a greater depression of the I.Q. than those without severe jaundice or severe anemia. In a previous study of the I.Q. of children who had had erythroblastosis fetalis before 1947, i.e., before the use of exchange transfusions in treatment, the I.Q. was found to be 11.8 lower than that of the unaffected siblings, used as controls. Comparison of the results in the present series with this result in the earlier studies leads the authors to conclude that while it is "tempting to suppose" that exchange transfusions do protect the central nervous system, yet the statistical analysis indicates that "there is 1 chance in 14 that the apparent improvement is not real."

COMMENT

This adds support to the concept that our prime mission in erythroblastosis is to keep the bilirubin below critical levels (in our group 15 mgms %). The degree of jaundice was found to be significantly related to the depression in the I.Q. We must prevent kernicterus and hyperbilirubinemia in these infants and the only method so far presented is exchange transfusions. J.T.B.



Medical Book News

Edited by Robert W. Hillman, M.D.

Nutrition

Eat, Think and Be Slender. By Leonid Kotkin, M.D. with the assistance of Fred Kerner. New York, Hawthorn Books, [c. 1954, The Author]. 8vo. 223 pages. Cloth, $2.95.

This timely and unique book incorporates the essence of the understanding of obesity in the light of modern physiology, biochemistry, endocrinology and psychiatry. Its practicability is greatly enhanced by its readability. It is an outstanding example of lucid expression which runs so smoothly, bringing into bold relief the experience-born facts and factors. Even a goodly amount of repetition is acceptable and effective by reason of its clear presentation. While popularly slanted for lay consumption, there is no doubt that medical student and practitioner will welcome this "refresher" in applied metabolism, which at the same time gives primary importance to the mental and emotional factors in the light of psychoanalytic interpretation.

Popular fallacies and harmful curbstone exhortations are effectively debunked. Misconceptions and self-delusions are neatly disposed of. Each chapter is spiced with a pithy quotation, which adds to the relish of reading, as well as throwing an occasional pearl before the professing oralist who seeks expert help. For example, the chapter "Why Vitamins," reaches out to Seneca for this one, "the belly will not listen to advice." Sample diets are included. A dozen dos and don'ts of dieting are important guideposts.

FREDERICK L. PATRY

Neoplastic Diseases

The Riddle of Cancer. By Charles Oberling, M.D. Translated by William H. Woglom, M.D. Revised Edition. New Haven, Yale University Press, [c. 1952]. 8vo. 238 pages, illustrated. Cloth, $5.00.

This book reads like an interesting mystery story. All of the clues to the riddle of cancer are presented, and one gets the impression that an astute reader might, from the facts presented, actually guess before the completion of the mystery, the identity of the killer. All of the available experimental and historical data are presented. Experimental cancer is reported in detail. There are sections on hormones, nutrition, heredity and viruses in relation to the cancer problem.

The book will be read with interest and profit by physicians and by work-

ers in related fields, as well as by an informed lay public. The translation by Dr. William H. Woglom is fluent and skillful.

MORTIMER R. CAMIEL

Endocrinology

Pheochromocytoma and the General Practitioner. By Joseph L. DeCourcy, M.D. & Cornelius B. DeCourcy, M.D. Cincinnati, DeCourcy Clinic, [c. 1952, Barclay Newman]. 8vo. 165 pages.

This is essentially a handbook on the "Great Mimic", pheochromocytoma, so called because it most often masquerades as essential hypertension or malignant hypertension and may mimic any and every form of hypertension, sustained or intermittent, fluctuating or paroxysmal.

The chapter on historical data should be of interest to those who wish to know more about the background for various diseases and dates from the first case history of a patient with pheochromocytoma recorded by Frankel in 1886. Other chapters cover case histories, pathology, the clinical picture, diagnosis and treatment. Differential diagnosis is carefully outlined with emphasis upon the regitine test and its preferability to other drugs such as piperoxan. Procedures for performing the regitine test with description of a typical positive response, side effects, "false negative" and "false positive" responses are clear and answer most of the questions a physician might have.

There is a very long bibliography on the subject of pheochromocytoma. The type is particularly easy to read and the format of the book is generally good.

CECELIA JETT-JACKSON

MEDICAL TIMES

THE JOURNAL OF GENERAL PRACTICE

January to December **1954 INDEX** **Volume 82, Numbers 1-12**

SUBJECTS AND AUTHORS

REFRESHER ARTICLES

CONTEMPORARY PROGRESS

OFFICE SURGERY

EDITORIALS

CLINICO-PATHOLOGICAL CONFERENCES

MISCELLANEOUS

INVESTING FOR THE SUCCESSFUL PHYSICIAN

AUTHORS AND SUBJECTS

Investing For The Successful Physician

Prepared especially for Medical Times by Merrill Lynch, Pierce, Fenner & Beane, Underwriters and Distributors of Investment securities, Brokers in Securities and Commodities.

CURRENT BUSINESS OUTLOOK

Stock Market For the past year, the stock market has been advancing while the trend of business has either been declining or remaining stable.

The advance of over a hundred points in the Dow-Jones Industrial average from September of 1953 to October 1954 marks only the third time in market history that such an unbroken rise has taken place. Both previous cases were in the move to the 1929 highs.

With majority opinion now anticipating some improvement in business trends there is much discussion and some concern over current stock price levels.

Is the market high or will it move higher?

What has been the effect of the advance on measures of price-times-earnings and yields?

What, if anything, do market statistics show?

Will the market continue to rise now that business appears to have turned the recession corner?

The ability of stocks to advance during 1954 in the face of deterioration in business has been probably best explained by the word "confidence." The Republican administration has undoubtedly been the source for much of this optimism. Yet, this "better atmosphere" was not entirely a state of mind.

Action was quickly taken to reverse interest rates in 1953 when the impact of higher long-term rates was felt a year ago last spring. The end of EPT came off on schedule. Individual tax rates were slightly reduced. Some excise taxes were removed and a start toward making double dividend taxation less onerous came in the form of a divi-

dend credit. Incentives for expansion and modernization of plant and equipment were also voted.

Election Core of the recent election issue appeared to be whether this program to spark investment and business confidence would be continued or whether the emphasis would shift back toward inflationary policies designed toward increasing consumer purchasing power. Political changes create uncertainties. For example, utility stocks have been sold recently even though there does not seem to be any sound basis for thinking that their prospects would be seriously disturbed. Nevertheless, the recent political uproar over public or private sale of power to the AEC seems to have revived old attitudes.

The election is now history. The size of the Democratic majorities in both Houses of Congress was much smaller than most pre-election polls had anticipated.

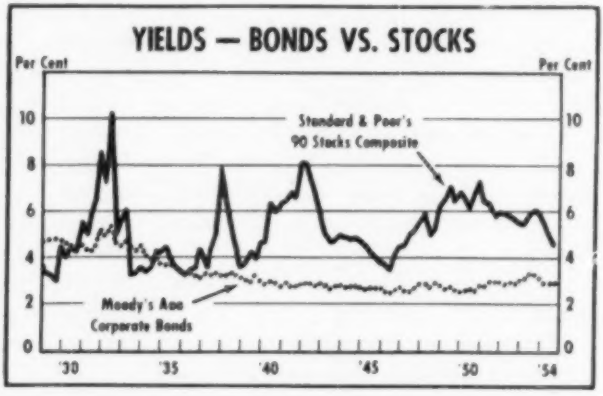
The stock market took this news as good news. Volume of trading spurted and averages moved upward. Investers evidently have taken the optimistic view that though the administration faces a stronger opposition in the Legislature, it probably will be able to operate effectively if an emergency develops in the economy.

Yields: Bonds vs. Stocks The Federal Reserve Board's current policy is directed toward making money readily available. No near-term change appears likely as long as business remains at present levels with inflationary fears at a minimum. If there is any firming in interest rates later on due to better business conditions, it will narrow the spread prevailing between stock and bond yields.

Due to the rise of the past year, stock yields for representative market averages (see chart) are under 5% for the first time since 1947. Since many institutional quality stocks have far outdistanced the general market, their yields are lower than for the average stock. The stock-bond yield spread in these cases is quite narrow. The effect is to reduce an important element of demand in the quality-stock market and shift it to high-grade preferred stocks and bonds.

However, there are still many good quality stocks above a 5% yield basis, and many secondary stocks with relatively higher yields which are still available. It is a fallacy to judge the "market" by the "averages" which include mainly the high-flying "blue chips."

There are 515 common stocks on the



The spread between bond and stock yields is the narrowest in eight years, but present stock yields still compare favorably with 1946, 1937 and 1929.

New York Stock Exchange which currently sell below their 1946 highs. Many of these are selling where they are for good reasons, but the search continues for "red chip" stocks which may have been overlooked or whose prospects are turning for the better. Many stocks such as railroads and steels are in the industries whose outlook will be improved by higher manufacturing activity.

The general feeling in financial circles today is one of caution over the near term with confidence in the longer range prospects for the market. However, when expectations are as much in agreement as they are today, there is still room for speculation on possible surprises.

Sales Sales trends suggest the possibility that new orders will continue to increase and that the decline in unfilled orders may be near an end. Sales have not gone through the contraction characteristic of the remainder of the economy. Except in the case of manufacturers' sales, which represent the extent of the decline in inventory additions, there has been very little change in end-product demand. The result so far is that only mild inventory correction has been necessary in wholesale and retail trade fields.

The prospects that retail trade will continue active are considered excellent. This should encourage the placing of new orders at a higher rate than recently, when caution dictated conservatism.

Consumer Credit One of the reasons for assuming that active retail trade will continue is the recent small increase in consumer credit. In the five months since the first quarter, short term consumer debt is up slightly over $400 million, with August accounting for a $97 million increase. The rise reverses a decline during the first three months of $1.7 billion which followed the spectacular average increment of almost $500 million per month in late 1952 and the first half of 1953 after credit curbs were lifted.

It is now two years since the large additions to consumer credit, mainly installment debt, began. As much of this was probably for 18 months or two years, the proportion of consumer income available for discretionary spending should increase in the months ahead.

Housing and Durable Goods Of significance also for retail trade is the record business being generated by easier lending terms in the new housing act. Both F.H.A. and V.A. loan requests are far above 1953, which suggests that active home building second only to record 1950 will continue well into 1955. In turn this building spells activity in home furnishings and consumer durable goods lines. Indicative of this trend is the fact that August sales of both washers and dryers were above August 1953 and July 1954 levels.

Unemployment With favorable sales prospects apparently ahead, it would seem natural if earlier worries about growing unemployment had proved needless. This, unfortunately, is not the fact. The jobless continue to be a threat to the improving sales picture. Active sales depend upon consumer confidence, which is hardly helped by growing or relatively high unemployment. Official statistics now list 2.7 million unemployed, down from a March peak above 3.7 million. The 1954 level is the highest since 1949.

Although hiring has increased and lay-offs have dropped in anticipation of fall business, neither figure is much

better than seasonal, and the figures themselves are open to question. This is because those working part weeks, now numbering about 2.5 million, are considered as employed. Yet their buying power is obviously reduced.

Also, the official figures show absorption of an estimated half a million college graduates into the working force without any perceptible change in either employment, unemployment or the civilian labor force. If these students have found employment, they add to total buying power. If not, they are an added drag upon the economy.

Up to this point, most unemployed have been eligible for insurance benefits. As a result personal income has been well sustained, and consumer confidence has not been greatly impaired. If unemployment continues, however, the number of those ineligible for continuing benefits will increase.

The extent to which this has already happened is not revealed in Labor Department statistics except that insured unemployment amounted to 64% of total unemployment at the March peak while the figure is now down to 57% of a lower number of unemployed. Another problem is that increasing unemployment is indicated by the rate of increase in factory productivity coupled with additions to the labor force from our growing population.

Government Buying Federal government expenditures are budgeted at $64 billion in the 1955 fiscal year that began in July. This is down $3.6 billion from 1954, but is much less steep than the $6.7 billion drop in 1954. Also, fiscal 1955 procurement contracts are scheduled to double the $9 billion figure of 1954. This will bring procurement in line with deliveries, which should result in stability in both new orders and backlogs once the impact of the rise in orders is felt. Not included in 1955 figures are plans for naval modernization and for protection of the North American continent by means of radar warning systems which may add upwards of $10 billion per year to future budget estimates. There is also talk of a huge highway construction program which might add $5 to $10 billion per year to total spending.

Business Spending Latest estimates of business spending for plant and equipment project a total of $26.7 billion for 1954, down 6% from record 1953, but above any previous year. On a quarter-to-quarter basis, the $26.0 billion spending rate in 1954's last quarter will be almost 10% below the last quarter of 1953 which was only slightly below the peak rate of $28.9 in the preceding 1953 quarter.

As yet the new tax provisions for more rapid depreciation have not been reflected in business spending plans. Rather, the economy is on the downside of the bulge caused by defense-related expansion. Most of the earlier accelerated-amortization-sparked building is now complete. Business spending plans in the future should more nearly reflect future anticipations regarding the economy, but it will take a lot of smaller expansion plans to make up for the end of programs related to defense.

At present the business community is guardedly optimistic. Retailers anticipate fall sales equal to a year ago and a good Christmas season. The National Association of Purchasing Agents expects "a gradual steady increase in a highly competitive buyers' market." These conditions are more closely akin to so-called "normal" than at any time

SELECTED ISSUES

	Consec. Year Divs. Paid	Divs. Paid 1953	Annual Indicated Dividend Rate	Price Range 1954 High	Price Range 1954 Low	Approximate Price 10-20-54	Approximate Yield %
Investment Type							
Amer. Nat. Gas	51	1.90	2.00	50 7/8	39 3/4	45 7/8	4.4
E. I. DuPont	51	3.80	4.00	150	104 1/8	149 5/8	3.7
First Natl. of Boston	91	2.90	2.40	57 1/4	48 1/2	57 1/2	4.2
General Foods	33	2.65	2.80	80 1/8	56 5/8	77	3.9
Gulf Oil	19	2.00	2.00	62 3/4	45 7/8	60 1/4	3.3
Int. Bus. Mach.	39	3.20	4.00	306	196 3/4	350	1.1
Minn. Mng. & Mfg.	39	1.00	1.40	74 1/2	55 1/4	72 7/8	1.9
National Dairy	31	1.50	1.60	41 3/4	31	38 3/4	4.1
No. American Co.	46	n	p	26 1/8	20	26 3/4	8.4
Pacific Gas & Elec.	36	2.05	2.20	45 7/8	39 1/8	43 7/8	5.0
Union Pacific	55	6.00	6.00	146 3/4	105 1/4	144 1/4	3.5
Liberal Income							
Dana Corp.	19	3.00	3.00	42 1/2	30 1/2	43 3/4	6.9
Gen. Public Utilities	9	1.60	1.70	34 1/8	28 1/8	32 1/8	4.6
Glidden Co.	22	2.00	2.00	40 5/8	28 3/4	37 7/8	5.3
Louisville & Nashville	21	5.00	5.00	78 3/4	59 3/4	70 7/8	5.6
New Eng. El. Syst.	8	0.90	0.90	16 1/4	13 3/4	16 1/8	5.6
Pub. Serv. El. & Gas	31	1.60	1.60	29 3/4	25 1/2	29	5.5
Good Quality: Wider Price Movement							
Atlas Corp.	20	1.60	2.00	41 1/4	29	38 1/2	5.2
Caterpillar Tractor	40	2.50	2.00	65 1/4	44 3/4	73 1/4	2.7
Chgo., Rock Island	7	4.50	5.00	77 1/2	62 1/2	82 7/8	6.0
Colum. Broad. "A"§	24	1.85	1.85	75 1/4	41 1/2	80	2.0
Eastern Air Lines	5	0.50	1.00	32 1/2	21 3/8	36	2.8
Genl. Telephone Corp.	19	1.47	1.60	37 1/4	29 3/4	34 7/8	4.6
Illinois Central	5	1.25	2.50	52 1/8	37 1/8	54 1/2	3.4
Lehigh Portland	19	1.20	1.20	49 1/4	27 1/2	50 3/4	2.4
Marine Midland	26	0.60	0.72 1/2	16 1/8	12 1/2	16	4.4
Skelly Oil	18	1.62 1/2	1.80	50 5/8	35 1/2	45	4.0
Standard Brands	56	1.70	2.00	36 7/8	28 1/8	37 1/8	5.4
Texas Utilities	38	1.93	2.08	58 1/4	46 5/8	55 7/8	3.7
United Fruit	56	3.50	3.00	53 3/8	45 1/8	53 3/4	5.6
United Gas Corp.	10	1.25	1.50	32 1/2	27 5/8	31 5/8	4.7
Wesson Oil & Snow.	28	1.40	2.40	40 1/8	24 1/8	40	3.5
Speculative							
Admiral	12	0.87 1/2	1.00	26 1/2	18 1/4	26 5/8	3.8
Armco Steel	15	3.00	3.00	57 3/4	33 1/4	60 1/4	5.0
Associated Dry Goods	12	1.60	1.60	26 3/4	18 3/8	27 1/2	5.8
Carrier Corp.	7	1.85	2.00	62 1/4	46 3/4	55 3/8	3.6
Delta Air Lines	6	1.10	1.20	28 1/2	19	29 3/4	4.0
El Paso Nat. Gas	19	1.60	1.60	41 3/4	35 3/8	39 1/8	4.1
Grumman Air.	20	2.00	2.00	39 5/8	22 3/8	37 1/8	5.3
Gulf Interstate Gas	—	—	—	11	7 5/8	11 1/8	—
Intl. Tel. & Tel.	4	1.00	1.00	24	13 7/8	24 3/8	4.1
Motorola	13	1.50	1.50	48 3/8	30 1/4	50	3.0
No. American Aviation	4	1.75	3.00	49	20	43	7.0
Radio Corp.	14	1.00	1.20	35	22 1/2	36 3/4	2.7
Reynolds Metals	13	1.00x	1.50x	95 5/8	51 5/8	106 1/2	.9
Trans World Air.	—	u	Nil	22 3/4	13 1/8	24 3/8	—
U. S. Steel	15	3.00	3.00	60	39	64 3/8	4.7

n—Paid 1/10 share Union Electric and $.30 in cash. p—No cash dividends to be paid. §—No basic difference between "A" and "B" stock. x—Plus 5% stock. u—Paid 10% stock.

For a complete explanation of these ratings and objectives see box in this article.

Security selections have been classified as follows: "Investment Type"—These are stocks of companies in strong financial circumstances, with sound capital structures, demonstrated earnings ability in good times and bad, and long dividend records. It also may include long-term growth stocks.
When "investment type" stocks sell at levels where price risks have been substantially increased, they might be either eliminated or transferred to "good quality—wider price movement." The latter classification recognizes the possibility of wider price fluctuations that might be expected of investment type issues.
"Liberal Income"—Selections cover a wider range in quality but provide a better than average yield. The current dividend is likely to be maintained in the near future, but the possibility of a change in dividend is greater than in the preceding group. Growth frequently is lacking.
"Good quality—wider price movement"—Stocks are of good quality but prices, because of greater sensitivity to business conditions, may be expected to move over a wider range than those classified as "investment type."
"Speculative"—Stocks of lower quality which will probably fluctuate over a fairly broad price range for a number of reasons such as the unstable or cyclical character of the business engaged in or because of the large amounts of debt and/or preferred stocks ahead of the common. (The latter situation tends to create "leverage" which can effect extreme variation in common stock dividends.)

since the end of World War II. The amount of capital spending in such a competitive market cannot be foretold, but it is reasonable to assume continued mild contraction until well into 1955, or at least until the scope of anticipated business recovery is fairly well known.

Improving Outlook Although stability rather than recovery since the low of last spring has introduced a mild note of apprehension into many forecasts of fall business, most economic relationships continue to point to improvement, and continuing good retail sales have enabled correction of much inventory unbalance without disturbing general confidence.

Admittedly this is not the background for a new period of short-term boom, but the fact that a deflationary spiral was not set in motion by inventory correction is favorable.

The stage is now set for a more normal replenishment of goods in relation to sales rather than a cessation of replacement buying. Increases in unfilled order backlogs may indicate whether this trend is developing. But the very fact that a depression has not yet developed in this first serious test of some of the distortions of the post-war years should improve the general atmosphere in which future plans are made.

Meanwhile the underlying growth trends of population, improved and expanding research and technology, and the wide appeal of a "better" standard of living remain present to support the economy recurrently in further periods of economic hesitation.

Summary A modest improvement in business is anticipated over the balance of this year and into early 1955. The motor industry will operate at high levels following introduction of new models; steel, glass and accessory suppliers will boost their output. The building industry enters 1955 at a high level, but in the residential field some questions are being raised over the "forced draft" applied in the form of easy, long-term mortgages. Perhaps the Eisenhower-sponsored road building program will assume more definite form in coming messages to Congress. On the other hand, plant expansion may not measure up to recent levels and, if business does not revive, capital expenditures could contract rapidly since most industries are well advanced on their programs for new facilities.

From the 1955 profits angle, corporations will not have the benefits of EPT's demise which tended to cushion earnings in 1954; increasing competition will create more headaches for more

Thoroughbreds are born, not made—

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effective in broad range
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- relieve mucosal congestion

AMBENYL contains in each fluidounce:

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Dihydrocodeinone bitartrate	¼ gr.
Ammonium chloride	8 gr.
Potassium guaiacolsulfonate	8 gr.
Menthol	q.s.
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Supplied in 16-ounce and 1-gallon bottles.

dosage Every three or four hours—adults, 1 to 2 teaspoonfuls; children, ½ to 1 teaspoonful.

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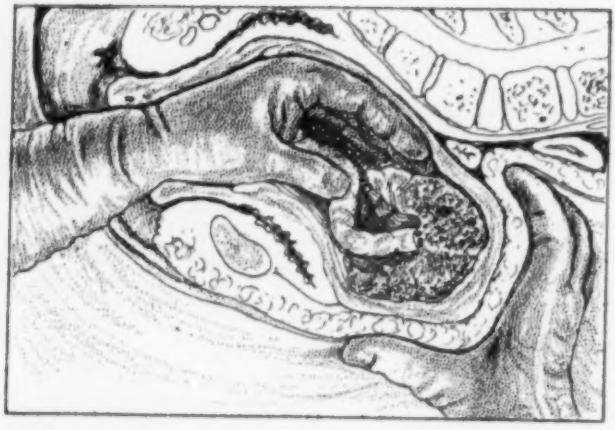
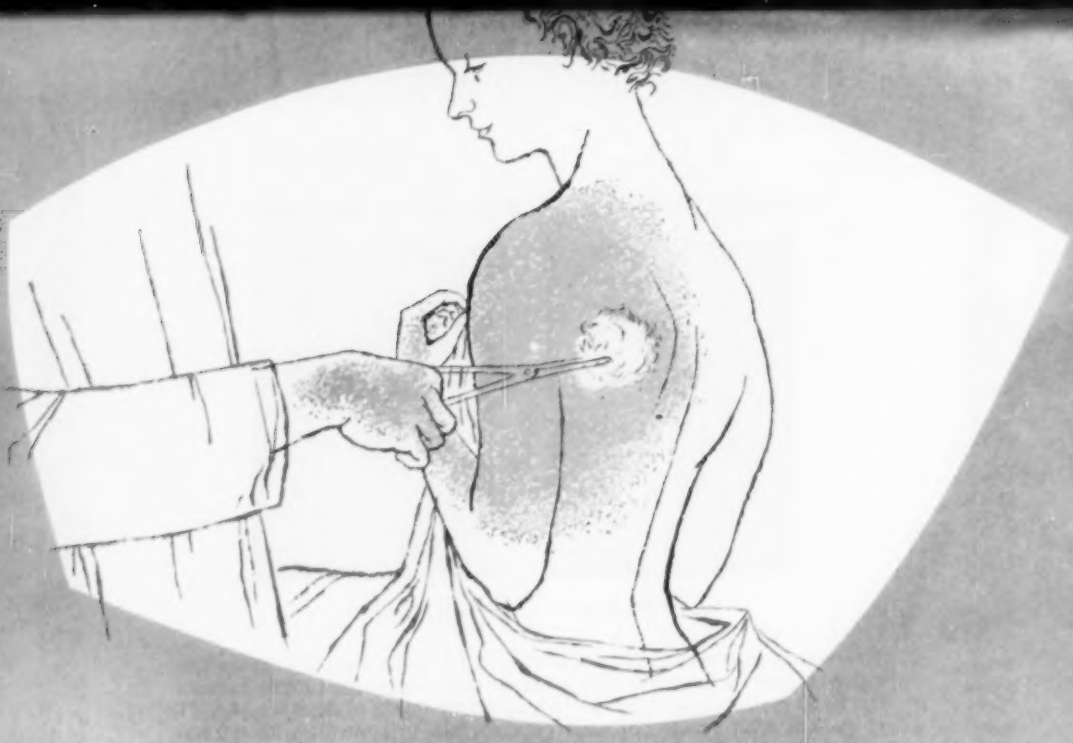
industries or individual companies; backlogs of orders need a good reversal from this year's steady contraction. On the favorable side, accelerated amorization programs will provide many companies with a much better cash flow than reported earnings might indicate.

Internal market statistics appear to give less support to the market than more fundamental relationships, but they do not appear to reflect excessive weakness. And, any decline from the high levels reached by the market price averages might be as selective on the downside as the advance has been on the upside.

Clini-Clipping



When Credé method is unsuccessful and especially if there is an alarming hemorrhage, hand removal of the placenta is indicated.



To relieve the itching of dermatosis

with greater safety from sensitization

NEW TRONOTHANE®

HYDROCHLORIDE

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CREAM

STERILE JELLY

COMPOUND LOTION

TOPICAL SOLUTION

TRONOTHANE introduces a unique chemical structure into topical anesthesia. It is not a "caine," nor is it related to other anesthetics.

Sensitization and toxicity can be expected to be negligible, judging from their absence in over 1,220 clinical trials to date. [1, 2, 3, 4]

Yet TRONOTHANE is prompt, effective. Use it to relieve discomfort in various itching dermatoses, anogenital pruritus, hemorrhoids, episiotomy, intubation, minor burns, etc. Write for literature.

Abbott

1. White, C. J., A New Anesthetic for Certain Diseases of the Skin, J. Lancet, 74:98, March, 1954.

2. Schwartz, F. B., Tronothane in Common Pruritic Syndromes, Postgrad. Med., 16:19, July, 1954.

3. Birnberg, C., and Horner, H., A Simple Method for the Relief of Postpartum Perineal Pain, Amer. J. Obst. & Gynec., 67:661, March, 1954.

4. Peal, L., and Karp, M., A New Surface Anesthetic Agent: Tronothane, Anesthesiology, in press, 1954.

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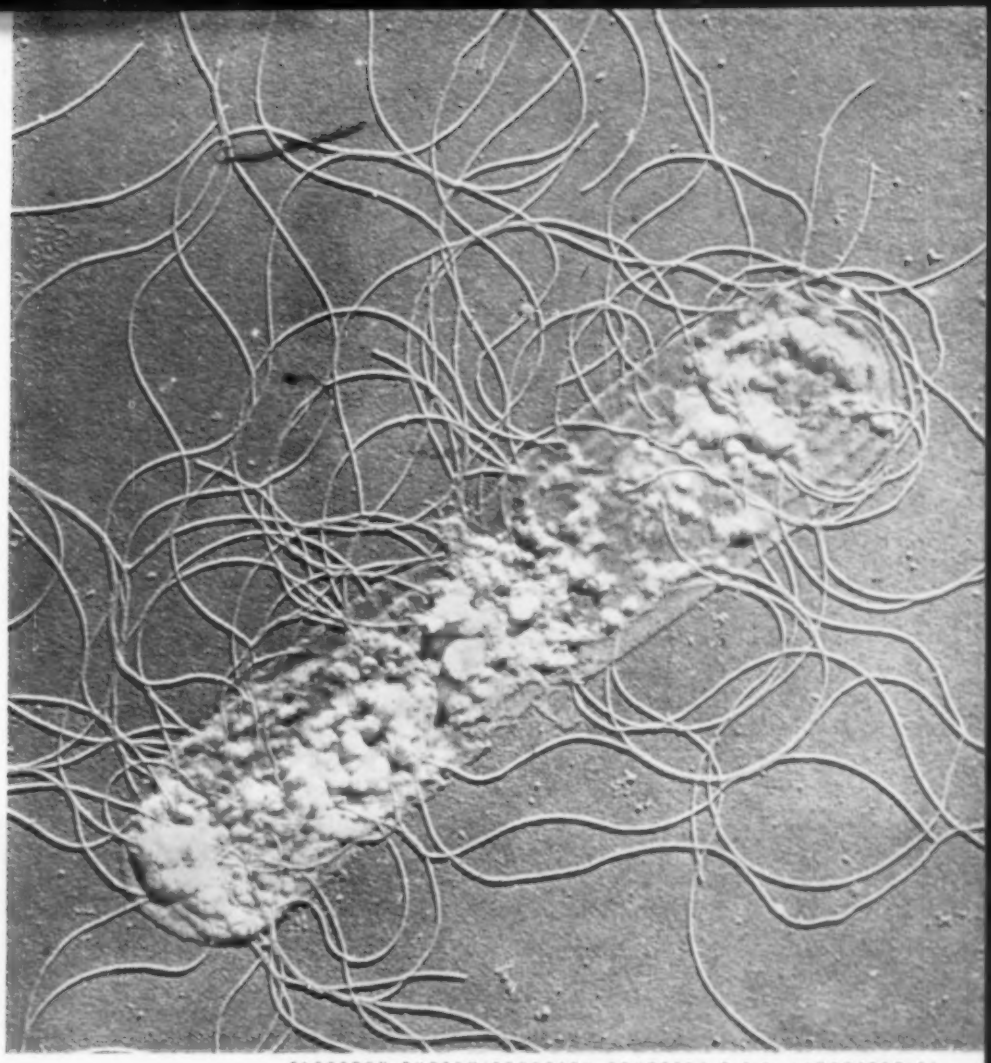

ELECTRON PHOTOMICROGRAPH COURTESY R.C.A. LABORATORIES

Proteus vulgaris 25,000 X

Proteus vulgaris is a Gram-negative organism commonly involved in

urinary tract infections • septicemia

peritonitis following low perforation of the gut.

It is another of the more than 30 organisms susceptible to

PANMYCIN*

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100 mg. and 250 mg. capsules

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MODERN THERAPEUTICS

Modern Oral Mercurial Diuretics Said to Contain Little Metallic Mercury

Do present day oral mercurial diuretics contain much metallic mercury?

This interesting question was posed recently by a physician and answered in the "Diuretic Forum" section of *Diuretic Review*, publication distributed to the profession by Lakeside Laboratories, Inc.

In contrast to the old inorganic mercurials such as the "blue pill" and calomel, the reply points out, modern oral mercurials are organic compounds found to contain no freely ionizable mercury.

Official tests of the A.M.A. Council on Pharmacy and Chemistry *J.A.M.A.* [*152*:331 (1953)] revealed an "absence of ionizable mercury and other heavy metals" in a leading oral mercurial diuretic, it is pointed out.

"In comparison with an average 100 mg. dose of calomel which contains approximately 85 mg. of ionizable mercury, there are only 10 mg. of organically-bound mercury in one tablet"

of this oral mercurial, the article concludes.

Vitamin C and Citrus Juices in Chronic Acne Vulgaris

A group of patients with chronic acne vulgaris showed "dramatic improvement shortly after the administration of vitamin C and citrus juices without change in the previous method of treatment," Dr. George E. Morris, assistant clinical professor of dermatology, Tufts College Medical School, reports. Writing in *Archives of Dermatology and Syphilology* [*70*:363 (1954)], Dr. Morris describes a 4-month study involving 53 patients with acne vulgaris, all of whom were given an 8-oz. glass of citrus juice twice daily and ascorbic acid in dose of 3 gm. a day.

Forty-three of the 53 patients showed improvement, he states, but the most interesting were 15 whom he had observed for protracted periods prior to the study or who had been treated elsewhere without improvement. With these 15 patients, "the administration of vitamin C seemed to improve them more than any other mode of treatment that they had received."

Dr. Morris concludes: "This study seems to substantiate the findings of the British Medical Research Council in that vitamin C and citrus juices play an important part in certain cases of acne." The reference is to an experimental study of vitamin C deprivation.

—Continued on following page

—Continued from preceding page

Early Conservative Therapy to Arrest Arthritis

Early and intensive use of a course of conservative treatment is "more likely to achieve a true arrest of rheumatoil arthritis than any other measure of therapy," according to Dr. Norman O. Rothermich of the Department of Clinical Medicine, Ohio State University College of Medicine.

Writing in *American Practitioner and Digest of Treatment* [5:647 (1954)], Dr. Rothermich emphasizes that no measures, or drugs, now available can cure the disease. In line with a program of conservative treatment, he says that "most cases are best treated with simple aspirin, and I see no advantage to using other more complex salicylate combinations which are only more expensive."

The author further notes that aspirin, and other salicylates, have some beneficial action in "all rheumatic diseases over and above their analgesic effect."

Discussing other forms of drug therapy, he suggests use of steroids or gold when it has been established that conservative measures have failed to manage the condition.

First step in treatment should be psychotherapy, with the physician acquainting the patient with the nature of the disease. Much progress can be made if the patient is given an insight into the pattern of his personality "which is playing such a large role in his disease."

Bed rest is cited as vital in managing rheumatoid arthritis, with the author calling ten hours daily the minimum. Other important measures are massage, exercise and the application of generalized heat to the whole body, in the form of hot baths.

Sulfadiazine Can Prevent Heart Damage in Children

Sulfadiazine or penicillin can prevent recurrences of rheumatic fever, a major chronic disease of children and adolescents, Dr. Gene H. Stollerman reports in the August *American Practitioner* [5:589 (1954)]. "Sulfadiazine has the advantage of being easy to administer, inexpensive, and effective, Dr. Stollerman writes. Oral penicillin "promises to be safe and effective" although there have been fewer controlled studies on this drug than on sulfadiazine.

In the article, Dr. Stollerman points out that, in the general population, about three percent of strep sore throats are followed by rheumatic fever, and that the chances of getting rheumatic fever from a strep infection are much

—Continued on page 92a

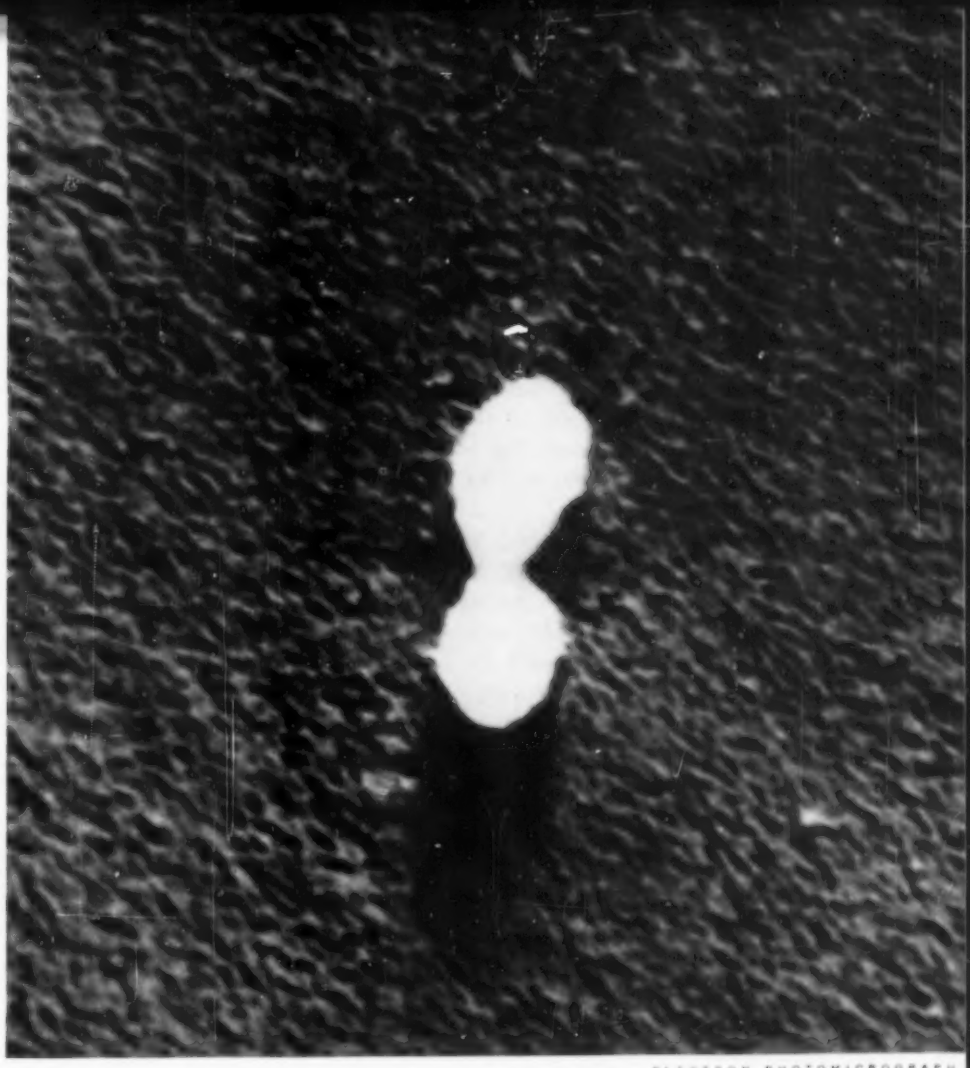
Diagnosis, Please!

ANSWER

(from page 25a)

APPENDICEAL ABSCESS

There is a large tender fluctuant mass indenting the cecum and terminal ileum with the base of the appendix inserted at the border of the mass.



ELECTRON PHOTOMICROGRAPH

Streptococcus faecalis 35,000 X

Streptococcus faecalis is a Gram-positive organism commonly involved in a variety of pathologic conditions, including **urinary tract infections • subacute bacterial endocarditis • peritonitis.**

It is another of the more than 30 organisms susceptible to

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100 mg. and 250 mg. capsules

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MODERN THERAPEUTICS

—Continued from page 90a

greater for a person who has had rheumatic fever before.

To prevent a recurrence of rheumatic fever, it is generally agreed that patients should take sulfadiazine or one of the forms of penicillin continuously for at least three to five years following an attack.

"Whichever is employed should be maintained continuously, summer as well as winter, usually until the patient is 18 years of age and in older individuals for at least five years after the most recent attack," Dr. Stollerman says in the article. "The expense, annoyance, and occasional indifference of the patient must be weighed against the fact that each rheumatic recurrence increases the danger of serious organic heart disease."

Post-Operative Use of Alevaire in Treating Pulmonary Conditions

Use of the mucolytic detergent Alevaire in aerosol form as a prophylactic or therapeutic measure is recommended in the treatment of respiratory complications in many postoperative cases, according to a study published in the *Journal of the American Medical Association* (Oct. 23, 1954).

Dr. Max S. Sadove and colleagues, reporting on a two-year study at the University of Illinois College of Medicine and the VA Hospital in Hines, Ill., state:

"In numerous instances, morbidity

—Continued on page 94a

a new word in medical practice...

BRAND OF MECLIZINE HYDROCHLORIDE HCl

®TRADEMARK

It's a new long-acting agent for the prevention and treatment of nausea and vomiting, associated with all forms of motion sickness, radiation therapy, vestibular and labyrinthine disturbances, and Ménière's syndrome.

Side effects, so often associated with the use of earlier remedies, are minimal with Bonamine. Its duration of action is so prolonged that often a single daily dose is sufficient. Bonamine is supplied in scored, tasteless 25 mg. tablets, boxes of eight individually foil-wrapped and bottles of 100.

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Division, Chas. Pfizer & Co., Inc.

MODERN THERAPEUTICS

—Continued from page 92a

and mortality may be decreased significantly by the judicious use of adjuvant aerosol therapy to the over-all therapy of the patient."

The doctors note that Alevaire has been "demonstrated to be safe and stable for aerosol treatment of both adults and children." Any type of irritation of the tracheo-bronchial tree produces secretions which have a vital effect on the respiration, they say, adding:

"The thinning of the secretions, or making the cough reflex more productive, is of far greater relative importance to the child than to the adult." Having used Alevaire with increasing frequency in the past two years, they observe that exhaustion and actual asphyxia have resulted from simple tracheo-bronchitic infections "which will respond with dramatic suddenness to adequate aerosol therapy."

In the two-year period of clinical study, here was no evidence of irritation to the mucosa of the respiratory tract.

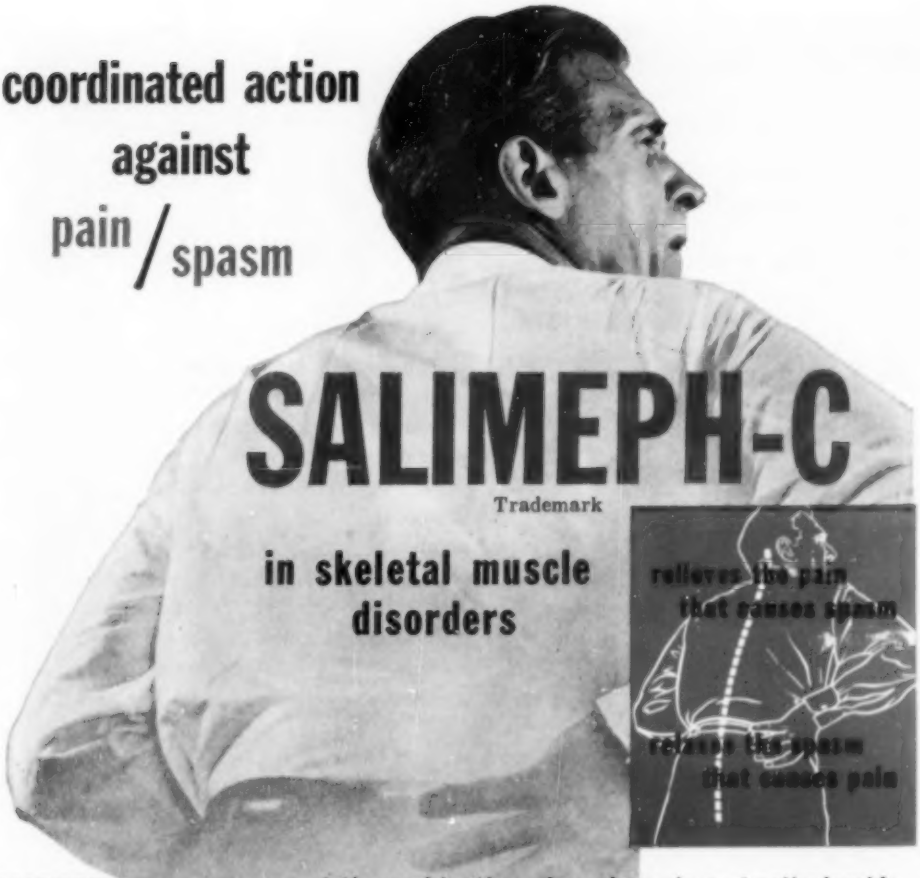
According to the investigators, Alevaire is a valuable and vital agent, and exceedingly safe and effective in mobilizing secretions.

Discussing the various types of "dampness" therapy, nebulization is called a far superior technique to atomization "because it gives a smaller and more uniform particle with less variation in size." This factor determines the portion of the respiratory tree where the agent exerts its primary effect, the authors say.

The two most common postoperative

—Continued on page 96a

coordinated action against pain / spasm



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in skeletal muscle disorders

SALIMEPH-C,* a new synergistic combination of mephenesin and salicylamide, successfully combats the interrelated pain and spasm of arthritis, myositis, bursitis, spondylitis, and low-back pain by providing:

SUSTAINED MUSCLE RELAXATION: in a new clinical study[1] of 200 unselected cases of arthritic and myositic conditions with associated pain and skeletal muscle spasm, **SALIMEPH-C** definitely gave effective relief from pain and spasm often after other forms of therapy including ACTH and Cortisone had failed.

MAXIMUM SAFE ANALGESIA: use of salicylamide in **SALIMEPH-C** provides desired analgesia at a lower drug level[2] and is better tolerated than acid-forming salicylates.[3,4] Optimum vitamin C levels are assured by the addition of ascorbic acid.

REFERENCES: 1. Natenshon, A. L., Wisconsin M. J., in press. 2. Seeberg, V. P., et al.: J. Pharmacol. & Exper. Therap. 101:275, 1951. 3. Brodie, D. C., and Szekely, I. J.: J. Am. Pharm. A., Scient. Ed. 40:414, 1951. 4. Wegmann, T.: Schweiz. med. Wchnschr. 80:62, 1950.

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Each tablet of SALIMEPH-C contains: salicylamide 250 mg., mephenesin 250 mg., and ascorbic acid 15 mg.

SUPPLIED: bottles of 100, 500, and 1000 tablets.

ethical pharmaceuticals since 1894

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LABORATORIES IN MILWAUKEE

—Continued from page 94a

complications are atelectasis and pneumonitis, although the latter is generally the result of "neglected" atelectasis. Safeguarding the patient against atelectasis entails cleansing the respiratory tree and proper maintenance of physiologic resistance. Anything tending to dry the secretions or render them more viscid should be avoided, the investigators warn.

The findings are jointly reported by Dr. Sadove and Drs. Cecelia E. Miller and Arthur T. Shima.

Sulfas Are Choice for Many Diseases

In spite of the recent emphasis on antibiotics, there is a growing reason to use the sulfonamides, Dr. Mack J. Mosely, Jr., of Galveston, Texas, writes in the June *Indian Medical Journal*. [128 (June 1954)]. They have the advantages of availability, efficacy, ease of administration, and cost, he points out. He sums up some of the conditions for which sulfonamides are indicated as follows:

In meningococcal infections sulfadiazine is the drug of choice, either alone or in combination with antibiotics, while many doctors give triple sulfas, as well as sulfadiazine, to contacts of the patient as a preventive measure.

In streptococcal infections, sulfa drugs are effective particularly when combined with penicillin. Members of the families of scarlet fever cases are often given sulfadiazine for seven days. Sulfamerazine and sulfadiazine are frequently used to protect people exposed to streptococcal tonsilitis.

—Continued on page 98a

MODERN THERAPEUTICS

—Continued from page 96a

For dysentery caused by shigella infections, some authors advocate sulfadiazine. Where slow intestinal absorption is desirable, "insoluble" sulfas are available.

Sulfa drugs are widely used to prevent and treat bacterial complications arising from the common contagious diseases of childhood, such as measles and chickenpox. Sulfonamides given in the pre-eruptive stage of measles frequently prevent complications, while sulfonamides and antibiotics can be employed effectively in secondarily infected chickenpox, in erysipelas and impetigo.

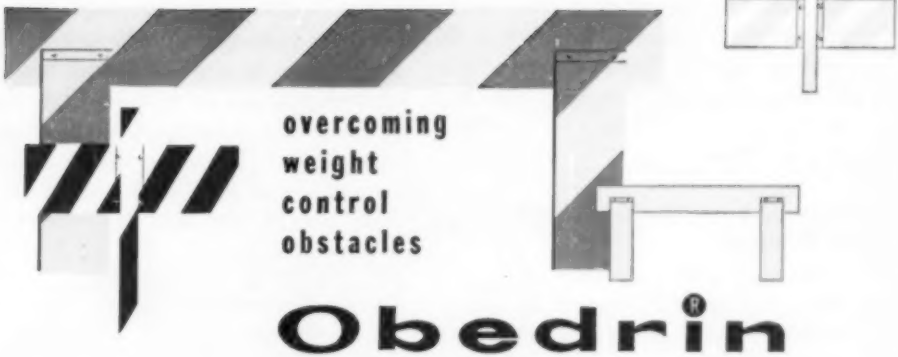
"The utilization of tri-sulfa and quadri-sulfa mixtures is based on the principle that toxicity is less with smaller amount of each sulfonamide than with an equivalent total dosage of either," Dr. Mosely reports.

The Effects of Pyridoxine on the Action of Isoniazid

Side reactions have been reported in man following prolonged treatment with isoniazid. Reactions were also observed in rats and guinea pigs. Experimental studies on rats showed that these side reactions could be reduced by the concurrent administration of pyridoxine. In vitro and in vivo studies also showed that the antitubercular activity of isoniazid was not affected by pyridoxine.

Ungar, Parkin, Tomich, and Muggle-

—Continued on page 100a



overcoming
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60-10-70
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diet

Patients can lose weight and maintain a restricted diet, in comfort, without undesirable side effects . . .

EXCESSIVE DESIRE FOR FOOD

Obedrin offers the full anorexigenic value of Methamphetamine to curb the desire for food, while counteracting mood depression. Patient co-operation is made easier.

NERVOUS TENSION

To avoid excitation and insomnia, Pentobarbital is the ideal daytime sedative. It counteracts over-stimulation by Methamphetamine, but does not diminish the anorexigenic action.

VITAMIN DEFICIENCIES

Obedrin tablets contain adequate amounts of vitamins B_1 and B_2 to supplement the 60-10-70 Basic Diet, but not enough to stimulate the appetite.

EXCESSIVE TISSUE FLUIDS

Large doses of Ascorbic Acid aid in the mobilization of fluids, so often an obstacle in obesity.

BULK NOT NECESSARY

The 60-10-70 Basic Diet provides enough roughage, so artificial bulk is unnecessary. The hazards of impaction caused by "bulk" producers is obviated.

Write For
60-10-70 Diet
Pads, Weight Charts
And Professional
Sample Of
Obedrin

Each tablet contains:

Semoxydrine HCl (Methamphetamine HCl)	5 mg.
Pentobarbital	20 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	0.5 mg.
Riboflavin	1 mg.
Niacin	5 mg.

S. E. MASSENGILL CO.
Bristol, Tennessee

—Continued from page 98a

ton, therefore, suggested, in *The Lancet* [*II*:220 (1954)], that pyridoxine be tried in human beings patients who show an intolerance to isoniazid therapy in an effort to reduce the incidence of side effects.

Vitamin B_{12} in the Treatment of Psoriasis

Psoriasis with a duration of from 7 months to 38 years showed an involution of the eruption in 11 of 34 patients following intramuscular injections with high doses of vitamin B_{12}. Ten more of the 34 patients showed an improvement of about 75 per cent in the eruption and six others showed slow improvement with continued treatment.

Ruedemann, reporting in *Arch. Derm. & Syph.* [*69*: 738 (1954)], stated that the treatment with vitamin B_{12} had surpassed all previous methods in the rapidity of results and lack of reactions. However, he indicated that it will be some time before the full results of treatment can be evaluated because of the tendency for psoriasis to recur. Special diets, tar baths, and sunlight were suggested as adjuncts to the treatment with vitamin B_{12}.

Studies On the Action of a Chloro-Derivative of Cortisone

A chloro-derivative of cortisone has been shown by tests on mice, rats and guinea pigs to have an enhanced activity relative to cortisone and hydrocortisone. Callow, Lloyd and Long, writing in *The Lancet* [*II*:20 (1954)], reported

—Continued on page 102a

in chronic calcific tendinitis—

"unusually good results"[1]

"easy, safe, and free of side-reactions"[1]

"adaptable for routine office use"[1]

A 1-cc. injection of sustained-action MY-B-DEN, daily or every other day, relieved pain and disability in 44 out of 53 patients. In nine patients awaiting surgery, relief was "so gratifying" that operation was cancelled.[1] Equally successful results have been reported by other investigators.[2,3]

MY-B-DEN®

(adenosine-5-monophosphate)

Supplied: MY-B-DEN Sustained-Action in gelatine solution: 10 cc. vials in two strengths, 20 mg. per cc. and 100 mg. per cc. adenosine-5-monophosphate as the sodium salt.

1. Susinno, A. M., and Verdon, R. E.: J.A.M.A. *154*:239 (Jan. 16) 1954.
2. Rottino, A.: Journal Lancet *71*:237, 1951.
3. Pelner, L., and Waldman, S.: New York State J. Med. *52*:1774 (July 15) 1952.

"pioneers in adenylic acid therapy" **Bischoff**

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MODERN THERAPEUTICS

—Continued from page 100a

that the chloro-derivative inhibits growth of adult mice and induces a higher mortality than cortisone acetate. It also causes increased thymus involution and liver hypertrophy in the nestling rat than either cortisone or hydrocortisone acetate. Aside from these toxicity tests, the chloro-derivative is more active than hydrocortisone and cortisone acetate in depressing sensitivity to tuberculin in B.C.G.-infected guinea pigs.

The authors concluded that 9α chlorohydrocortisone acetate should probably have high therapeutic activity in man.

Results of Urinary Infections in 50 Patients

"Furadantin(R) is an effective drug in

—Continued on page 104a

MEDICAL TEASERS

Solution to puzzle on page 41a

C	A	D	■	I	M	A	G	I	N	E	■	A	E	F
A	C	I	D	F	A	S	T	B	A	C	I	L	L	I
L	E	N	E	■	A	A	■	I	R	■	S	L	O	B
M	R	■	C	A	S	K	■	S	Y	B	O	■	Q	R
E	■	M	I	L	■	■	■	■	■	A	N	E	■	O
T	R	U	D	E	A	U	■	H	A	L	I	B	U	T
T	A	L	U	S	■	■	■	■	■	T	A	R	R	I
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E	G	I	S	■	B	A	■	F	T	■	D	Y	E	S
L	U	D	■	J	E	T	■	U	E	L	■	A	N	T
B	E	■	K	O	C	H	■	S	N	A	P	■	A	R
O	R	■	O	K	I	E	■	I	C	H	O	■	M	A
W	I	L	H	E	L	M	R	O	E	N	T	G	E	N
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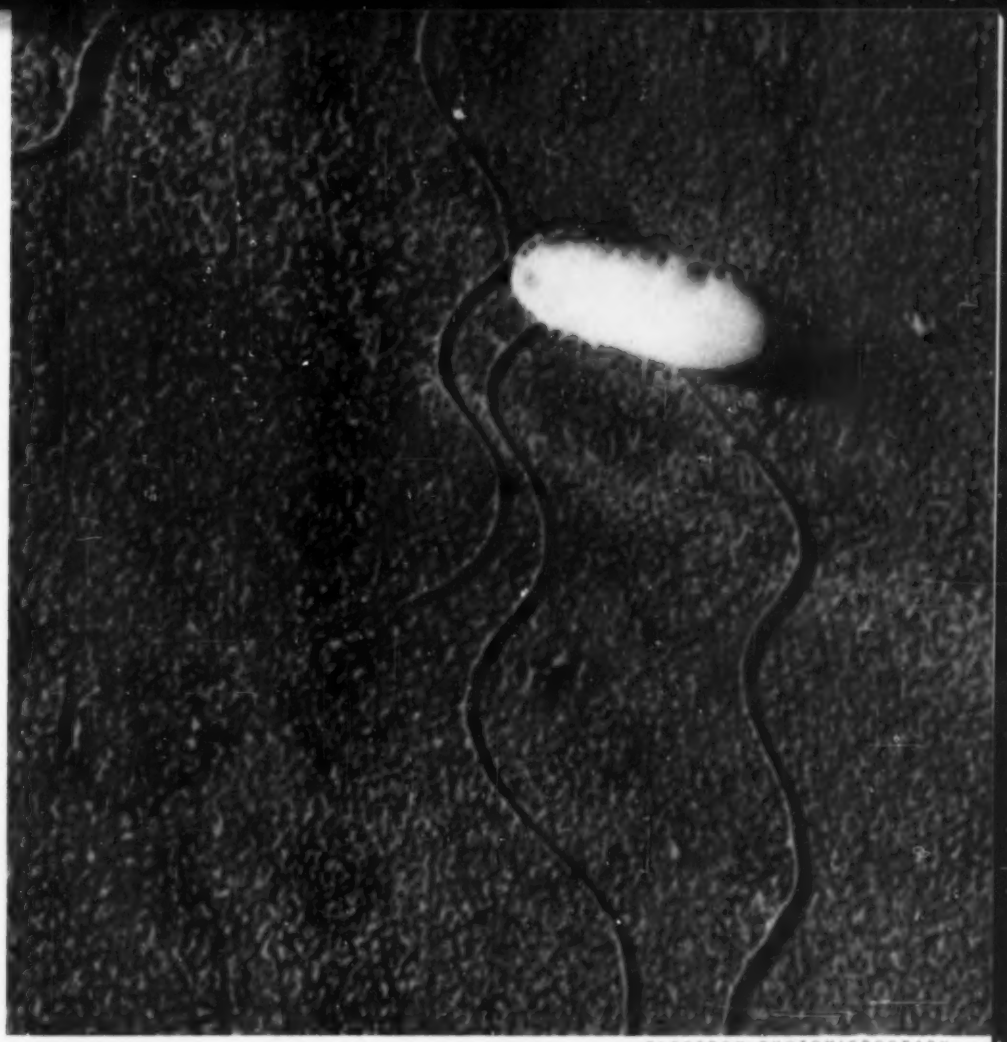

ELECTRON PHOTOMICROGRAPH

Salmonella paratyphi B 26,000 X

Salmonella paratyphi B (Salmonella schottmuelleri) is

a Gram-negative organism which causes

food poisoning • chronic enteritis • septicemia.

It is another of the more than 30 organisms susceptible to

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100 mg. and 250 mg. capsules

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—Continued from page 102a

the treatment of urinary infection caused by Escherichia coli and Aerobacter aerogenes," Dr. Joseph H. Kaplan and Dr. Richard Hobgood, Dept. of Surgery, College of Medical Evangelists, Los Angeles, report in *Journal of Urology* [72:549 (1954)]. They studied 50 patients who had urinary tract infections.

Thirty patients experienced laboratory cures, the investigators state. Nineteen patients with chronic infections had previously been treated unsuccessfully with sulfonamides and antibiotics. Of these, Furadantin effected a laboratory cure in 6 and clinical improvement in 5.

The authors conclude that "it is our impression that Furadantin is a valuable adjunct to the already available chemotherapeutic and antibiotic agents."

Oral Treatment of Congestive Heart Failure with Choline Theophyllinate

An effective diuretic response and relief of symptoms was obtained in 28 of 45 congestive heart failure patients by the oral administration of choline theophyllinate in 50 to 400 mg. doses 3 to 4 times a day. The response was gradual in onset and required several days for maximum results. Choline theophyllinate also increased the effectiveness of mercurial diuretics when they

—Continued on page 106a

PHOTOGRAPH BY BUZZIE GREEN

"My throat sure feels better"

TRACINETS®

BACITRACIN-TYROTHRICIN TROCHES WITH BENZOCAINE

Actions and Uses: With TRACINETS you can readily relieve afebrile mouth and minor throat irritations in your young patients—and in older ones, too. Acting together, bacitracin and tyrothricin are truly synergistic. Soothing local relief is afforded by benzocaine.

In severe throat infections TRACINETS Troches, by their local action, supplement antibiotic injections.

Quick Information: Each TRACINETS Troche contains 50 units of bacitracin, 1 mg. of tyrothricin and 5 mg. of benzocaine. Available in vials of 12.

—Continued from page 104a

were necessary.

Batterman, Grossman, Blackman, Brooks, and Schwimmer also reported in *Internat. Med. & G. P. Clin.* [*167*: 261 (1954)] that gastrointestinal tolerance was excellent, a marked contrast to aminophylline. Resistance to choline theophyllinate did not develop even after 75 weeks of administration.

Diuresis Promoted by Resin in Cases of Cardiac Edema

Three resins were employed in the treatment of the edema of chronic cardiac decompensation, according to Bernstein and Evans in *Ann. Int. Med.* [*40*: 698 (1954)]. Eight of 11 ambulatory patients treated showed good diuresis and required fewer mercurial diuretic injections to maintain cardiac compensation than previously.

A hydrogen-potassium carboxy resin and an ammonium-potassium carboxy resin produced acidosis in the majority of instances. However, a hydrogen-potassium carboxy resin to which an anion exchange resin had been added did not produce acidosis. According to the authors, the amount of sodium in the diet did not appear to determine the response to the therapy. It was suggested that the resins induce diuresis by preventing absorption of a relatively small fraction of sodium in the gastrointestinal tract which favorably influences an individually determined critical level of sodium excretion by the kidney.

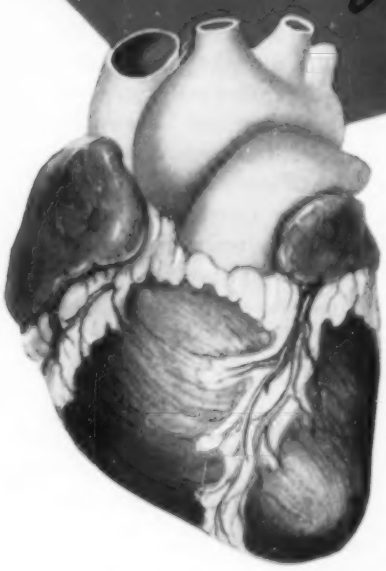
A Drug of Choice in Amebiasis

After discussing results obtained with

—Continued on page 108a

IN ANGINA PECTORIS

A Closer Approach to Definitive Therapy



- Reduces nitroglycerin needs
- Reduces severity of attacks
- Reduces incidence of attacks
- Increases exercise tolerance
- Reduces tachycardia
- Reduces anxiety, allays apprehension
- Lowers blood pressure in hypertensives
- Does not lower blood pressure in normotensives
- Produces objective improvement demonstrable by EKG.

Descriptive brochure on request.

PENTOXYLON, the newest therapy in angina pectoris and status anginosus, combines the tranquilizing and bradycrotic effects of Rauwiloid® and the long-acting coronary vasodilating effect of pentaerythritol tetranitrate (PETN).

The rationale of this new combination of drugs is based in part upon the well-known observation that the frequency and severity of anginal attacks are worsened by fear and apprehension. The Rauwiloid effect in PENTOXYLON serves to slow the rapid pulse which accompanies apprehension and pain. The slower heart rate, with its lengthened diastole, permits better coronary filling, more adequate ventricular filling, and wider stroke volume. Thus the work demand on the myocardium is diminished while PETN exerts its prolonged coronary dilating effect. PENTOXYLON offers therapy in angina without xanthines, without stimulation of cardiac rate or work.

Development of full effectiveness of PENTOXYLON requires about 2 weeks of therapy, though benefits have been observed after 24 hours. Continuing therapy over a period of time with PENTOXYLON—in the usual dosage of 1 tablet q.i.d.—can be expected to reduce markedly or to abolish the nitroglycerin requirements.

PENTOXYLON™

Each tablet contains pentaerythritol tetranitrate (PETN) 10 mg. and Rauwiloid® 1 mg.

Another **Riker** *Original*

RIKER LABORATORIES, INC., LOS ANGELES 48, CALIFORNIA

—Continued from page 106a

a number of drugs used in the treatment of amebiasis, Dwork stated in *Am. J. Gastroenterol.* [*22*:152 (1954)], that there is no single drug of choice but there is a choice of effective drugs. He stated that most cases in this country will be best managed by a course of Diodoquin or Carbarsone. The antibiotics Fumagillin, Terramycin and Aureomycin are effective agents in the treatment of many cases. Penicillin or sulfasuxidine may prepare the way for the subsequent use of a more efficient amebicide by diminishing the bacterial content of the bowel. In seriously ill patients, emetine should be given initially. Chloroquin is effective in providing a cure of over 90 per cent in cases of amebic hepatitis but is much less effective in amebic colitis.

Cream and Ointment Bases with Silicones

Several formulations of silicones were prepared and the results reported by Malloch in *Pharm. J.* [*173*:140 (1954)]. Little difficulty was experienced in preparing the formulations. In general, the silicone was fused with the oil phase on a water bath, the aqueous phase was heated to the same temperature, the two phases were mixed and then stirred until cool. Among the formulas presented were the following:

a. MS 200	30 per cent
Cetyl alcohol	10 per cent
Yellow Petrolatum	60 per cent

The silicone separates if incorporated only with the petrolatum.

b. MS 200	70 per cent

Magnesium stearate	30 per cent

A vanishing cream type with good water repellency.

c. MS 200	30 per cent
Stearic acid	5 per cent
Cetyl alcohol	2 per cent
Diethylene glycol monoethyl ether	10 per cent
Water q.s. ad	100 per cent

A vanishing cream type with good water repellency. Also may be diluted with water.

The silicone employed (MS 200) was a methyl silicone having a viscosity of 350 centistokes.

Erythromycin Ointment in Conjunctivitis

Erythromycin in a concentration of 5 mg. per Gm. of ointment was found to be effective in *in vitro* studies in inhibiting the following organisms isolated from 15 clinical cases: hemolytic and nonhemolytic *Staphylococcus albus*, hemolytic *Staph. aureus*, nonhemolytic streptococcus, pneumococcus, pneumococcoid, and a *Hemophilus*. Among six ophthalmic ointments tested, erythromycin ointment was the only one which inhibited all of the organisms.

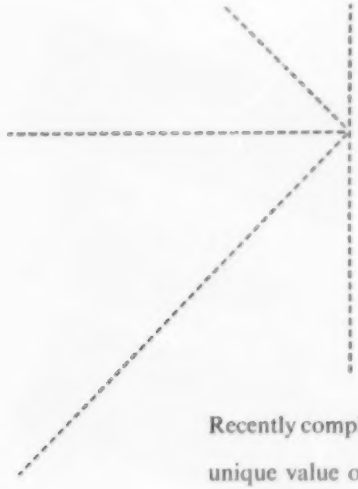
When used clinically, according to Prater and Moor in *Am. J. Ophthalmol.* [37:938 (1954)], all of the fifteen cases of conjunctivitis from which the organisms were isolated, cleared promptly and satisfactorily. There were also no instances of allergic, irritative, or other untoward reactions to the medication.

A New Antibiotic, Synnematin, for Typhoid Fever

An antibiotic named synnematin has

—Concluded on page 112a

Areas of Clinical Study / One of a series



ANEMIA OF INFANCY

Recently completed—1954—studies [1, 2] again confirm the unique value of Roncovite (cobalt-iron) in the prevention and treatment of infant anemia.

Clinical results show that routine administration of Roncovite can completely prevent the iron deficiency which so frequently develops in the first six months of life.

RONCOVITE (*Cobalt-Iron*) *has introduced a wholly new concept in anti-anemia therapy. It is based upon the unique hemopoietic stimulation produced only by cobalt. The application of this new concept has led to marked, often dramatic, advances in the successful treatment of many of the anemias.*

EFFECTIVE

"It is a significant fact that none of the ... cases receiving iron as well as cobalt required additional iron therapy and that the haemoglobin levels of this group remained consistently and significantly higher than those in any other group after the age of 4 months."[1]

"...there can be no doubt that the average hemoglobin values ... are greater in the cobalt-iron (Roncovite) treated group."[2]

PATIENT SATISFACTION

"...the mothers of these anaemic infants frequently stated spontaneously that the children were much improved, with increased appetite and vigour. It seems possible, therefore, that even if anaemia in premature infants does not usually produce marked symptoms, there is a subclinical debility which becomes more evident in retrospect."[1]

SAFETY

"There was no evidence of toxicity in any case under treatment:...There is nothing to suggest that cobalt in any way impairs the general progress or rate of weight gain in premature infants in the dosage employed."[1]

"The babies were closely observed daily for ill effects of the medication while at the premature unit and when they returned for check ups. None of them showed harmful effects despite the large doses... A few of the babies ...have been followed for more than 100 days with no ill effects noted."[2]

SUPPLIED:

RONCOVITE DROPS

Each 0.6 cc. (10 drops) provides:
Cobalt chloride.....40 mg.
(Cobalt 9.9 mg.)
Ferrous sulfate.....75 mg.

RONCOVITE TABLETS

Each enteric coated, red tablet contains:
Cobalt chloride.....15 mg.
Ferrous sulfate exsiccated.....0.2 Gm.

RONCOVITE-OB

Each enteric coated, red capsule-shaped tablet contains:
Cobalt chloride.....15 mg.
Ferrous sulfate exsiccated.....0.2 Gm.
Calcium lactate.....0.9 Gm.
Vitamin D.....250 units

DOSAGE:

One tablet after each meal and at bedtime. 0.6 cc. (10 drops) in water, milk, fruit or vegetable juice once daily for infants and children.

1. Coles, B. L., and James, U.: Arch. of Disease in Childhood *29*:85 (1954).
2. Quilligan, J. J., Jr.: Texas State J. Med. *50*:294 (May) 1954.

Bibliography of 192 references available on request.

RONCOVITE

The original, clinically proved cobalt-iron product.

LLOYD

BROTHERS, INC.

Cincinnati, Ohio

In the Service of Medicine Since 1870

—Concluded from page 109a

been under investigation by the Michigan State Department of Health and the Mexican Government for the past 5 years. Clinical treatment of typhoid fever with this antibiotic was recently undertaken in 16 cases. Complete cures were obtained, according to a statement by Dr. A. E. Heustis in *Drug Trade News* [29:8 (Aug. 16, 1954)].

PVP as a Retardant for Penicillin Injections

Studies on human subjects were conducted to determine whether or not polyvinylpyrrolidone (PVP) will act as a retardant in the absorption of penicillin. The penicillin was injected into the subjects in a vehicle of normal saline and the blood levels determined. The next day the same subjects received the same dose of penicillin in the same manner except that the vehicle was a 10 or 20 per cent PVP solution.

Milberg, Colsky, and Lerner reported in *Antibiot. & Chemother.* [4:871 (1954)] that the blood levels following the intramuscular injection of crystalline penicillin G in PVP were somewhat higher and more prolonged than when in saline. With intravenous injections there was no significant difference. With intramuscular injections of procaine penicillin G some levels were higher with PVP but others were lower. There was no untoward reactions in any patient attributable to PVP.

The authors suggested that more studies should be made but that the intramuscular injection of crystalline penicillin in PVP may prove to provide higher and more prolonged blood levels.

in the treatment of Hypertension

Prolonged effect of mannitol hexanitrate

lowers pressure for 4 to 6 hours

New and Nonofficial Remedies: A.M.A. Council on Pharmacy and Chemistry, J. B. Lippincott, p. 243, 1953.

Marked diuretic action of theophylline

facilitates sodium excretion

Med. Times *81*:266 (Apr.) 1953.

Phenobarbital for relaxation without hypnosis

most useful for promoting daytime relaxation

J.A.M.A. *147*:1311 (Dec.) 1951.

Ascorbic acid + rutin for capillary protection

help to maintain capillary integrity

Delaware State M. J. *22*:283 (Oct.) 1950.

Semhyten®

BRINGS THE PRESSURE DOWN SLOWLY  **SAFELY**

Complete Medication for the Hypertensive

Each Semhyten Capsule contains:		Phenobarbital	¼ gr. (15 mg.)
Mannitol Hexanitrate	½ gr. (30 mg.)	Rutin	10 mg.
Theophylline	1½ gr. (0.1 Gm.)	Ascorbic Acid	15 mg.

Supplied: In bottles of 100, 500 and 1000 pink-top capsules.

The S. E. MASSENGILL Company • Bristol, Tennessee

NEWS AND NOTES

New Uses Found for Cortisone

Cortisone, a hormone used in treating rheumatoid arthritis, rheumatic fever, and some allergies, has been found useful in treating two serious infectious diseases.

Physicians in Bombay, India, working with an American visiting professor —a member of the World Health Organization—found that cortisone helped reduce spasms, breathing difficulty, muscle rigidity, fever, and deaths from tetanus, commonly known as lockjaw.

Tetanus occurs frequently in tropical areas and when symptoms quickly follow injury there is little chance of recovery, they said. They treated 20 cases of severe, quick-acting tetanus with cortisone injected and taken by mouth, and hydrocortisone, a similar hormone, by mouth. Eight patients survived, including six who received cortisone by mouth and two who received hydrocortisone. Only three of 20 simliar patients not given hormones survived.

Three Philadelphia physicians said cortisone helped reduce such symptoms as fever, mumps-like swelling, and eye inflammation accompanying sarcoidosis. This disease, whose cause is unknown,

—Continued on page 116a

potent hematinic...

Fully adequate for the oral treatment of pernicious anemia and other macrocytic anemias. Meets U.S.P. specifications.

Contains **extra** amounts of B_{12}

Patterned after Spies' basic formula,* provides a full complement of other essential or accessory hemopoietic factors for optimum response in the treatment of the common anemias.

Recommended daily dosage (3 capsules) contains:

Vitamin B_{12} with intrinsic factor concentrate .....1 U.S.P. Unit

Vitamin B_{12} U.S.P. (crystalline) .....75.0 mcg.

Folic acid U.S.P..... 5.0 mg.
Vitamin C (ascorbic acid)..150.0 mg.
Thiamine mononitrate (B_1). 10.0 mg.
Riboflavin (B_2) ..... 10.0 mg.
Nicotinamide .....150.0 mg.
Ferrous sulfate exsic.....600.0 mg.

"CLUSINTRIN"

for effective, practical antianemia therapy

Indications: Treatment of pernicious anemia and other macrocytic hyperchromic anemias; microcytic hypochromic anemia.
Availability: No. 316 — Supplied in bottles of 100 and 1,000.
*Spies, T. D.: J.A.M.A. **145**:66 (Jan. 13) 1951.

Ayerst

Ayerst Laboratories, New York, N. Y. • Montreal, Canada

5450

NEWS AND NOTES

—Continued from page 114a

often results in long-term disability, blindness or death. The "most dramatic response" to cortisone was in patients with swelling and fever, and the response of those with eye infections "was almost equally prompt and striking."

The physicians said that although cortisone often brought "marked" improvement from these and other symptoms in 35 of the patients treated, it favorably influenced the disease itself in only a minority. They noted, however, that their study may help in finding clues to the cause of the disease. They said patients' responses to the hormone suggested that sarcoidosis is not an infection, as it is regarded by some investigators.

The two reports were made in a recent issue of the *J.A.M.A.* by Drs. Roger A. Lewis, Baltimore; Rajaninath S. Satoskar, Gopalkrishna G. Joag, Bhalchandra T. Dave, and Jamnauas C. Patel, all of Bombay, India, and by Drs. Harold L. Israel, Maurice Sones, and Dick Harrell, Philadelphia.

Three other physicians sounded a warning note about prolonged treatment with cortisone and another hormone, corticotropin. Drs. Paul H. Curtiss, Jr., William S. Clark, and Charles H. Herndon, Cleveland, said they believed bone fractures suffered by four patients studied were the result of overlong treatment with the hormones, which tended to remove minerals from the skeleton.

Migraine Headaches May Be Inherited

Persons whose parents both suffered

—Continued on page 120a

because the new coating dissolves this fast...

Strip of timed photographs shows action of new *Filmtab* **ERYTHROCIN** Stearate in human gastric juice. Within 30 seconds, the *Filmtab* coating actually starts to dissolve. And within 45 minutes the tablet is completely disintegrated. Because of this swift disintegration, **ERYTHROCIN** Stearate is absorbed sooner, gives your patients blood levels earlier than enteric-coated erythromycin.

your patients get high blood levels in 2 hours or less

filmtab*

Erythrocin® STEARATE

(ERYTHROMYCIN STEARATE, ABBOTT)

disintegrates faster than enteric-coated erythromycin

filmtab*

Erythrocin . . . *for faster absorption*

New tissue-thin *Filmtab* coating (marketed only by Abbott) starts to disintegrate within 30 seconds—makes ERYTHROCIN Stearate available for immediate absorption. Tests show Stearate form definitely protects drug from stomach acids.

filmtab*

Erythrocin . . . *for earlier blood levels*

because there's no delay from an enteric coating, patients get high, inhibitory blood levels of ERYTHROCIN *in less than 2 hours*—instead of 4-6 as before. Peak concentration is reached at 4 hours, with significant levels for 8 hours.

filmtab*

Erythrocin . . . *for your patients*

Filmtab ERYTHROCIN Stearate is highly effective against coccic infections . . . and especially useful when the infecting coccus is resistant to other antibiotics. Low in toxicity—*it's less likely to alter normal intestinal flora than most other oral antibiotics.* Conveniently sized (100 and 200 mg.) in bottles of 25 and 100. Abbott

**TM for Abbott's film sealed tablets, pat. applied for.*

NEWS AND NOTES

—Continued from page 116a

from migraine may have about a 70 per cent chance of getting the headaches too, it was reported today.

Physicians, as far back as 1873, have theorized that this kind of headache runs in families. Three New York researchers now have made a study which they said supports the theory that the malady is inherited. If both parents have headaches, the trait may show up in about 70 per cent of their children, they said. If only one parent suffers headaches, the percentage drops to about 17.

The study was described by Helen Goodell, B.S.; Richard Lewontin, Ph.D., and Harold G. Wolff, M.D., of Columbia and Cornell Universities, in a recent issue of *Archives of Neurology and Psychiatry*.

They studied the "family pedigree" —information about relatives—of 119 persons having migraine, and found 343 persons who suffered headaches. Twenty of the patients had no relatives with migraine; 66 had one to three; 22 had from 4 to 7, and 11 patients had from 8 to 19 relatives with migraine.

In families where migraine occurred there were 832 children. Among 265 of them having neither parent with migraine, 76, or 28.6 per cent, had headaches; of 502 having one parent with migraine, 222, or 44.2 per cent, had migraine; and of the 65 persons both of whose parents were affected, 45, or 69.2 per cent, had migraine headaches.

—Continued on page 122a

The worst cases of PSORIASIS respond best to RIASOL

RIASOL REPORT

In the clinical investigation of RIASOL, patients who had resisted all other treatments were selected. With these controls, the results with RIASOL are impressive:

Improvement of skin lesions, 76%.

Complete clearing of skin, 38%.

Great improvement of skin, 67%.

Scaliness cleared or greatly improved, 71%.

Redness and elevation cleared or greatly improved, 67%.

Recurrence of psoriasis, 19%.

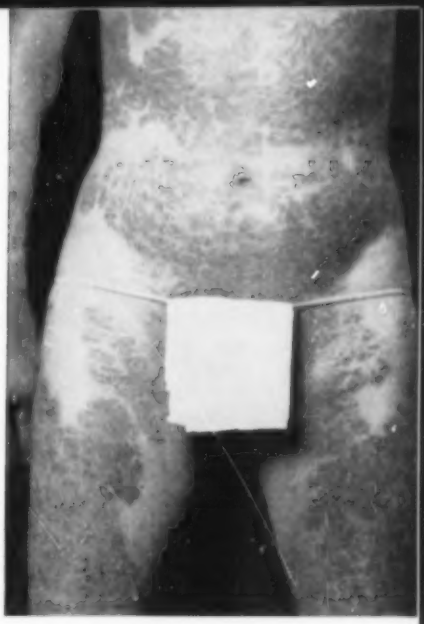
Adverse effects with RIASOL, 0.

Remissions with medications other than RIASOL, 16½%.

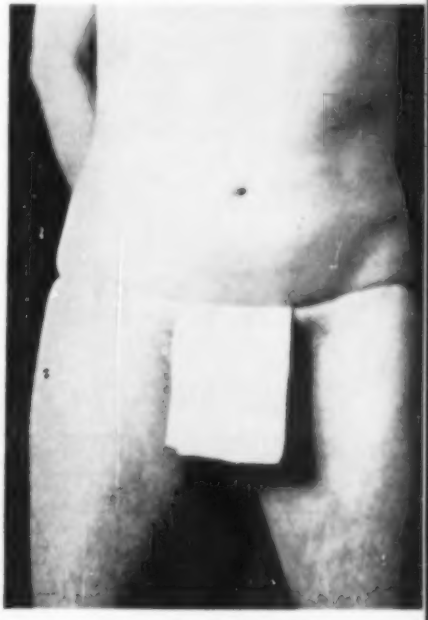
RIASOL contains 0.45% mercury chemically combined with soaps, 0.5% phenol and 0.75% cresol in a washable, non-staining, odorless vehicle.

Apply daily after a mild soap bath and thorough drying. A thin invisible, economical film suffices. No bandages required. After one week, adjust to patient's progress.

Ethically promoted RIASOL is supplied in 4 and 8 fld. oz. bottles at pharmacies or direct.



BEFORE USE OF RIASOL



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Please send me professional literature and generous clinical package of RIASOL.

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RIASOL for PSORIASIS

—Continued from page 120a

Incidence of migraine in the general population has been estimated at between five and 22 per cent. However, they said that "complaint of pain in the head from a variety of causes can be elicited from about 85 per cent of the population." Migraine headache follows a general pattern, usually beginning with pain on only one side of the head which may become general later. Attacks may last from less than an hour to several days, and are associated with loss of appetite, nausea, vomiting, seeing difficulty and mood changes, and sometimes with paleness, sweating, chills and dizziness.

The New York researchers commented that they assume migraine is inherited, but that the trait might show up in one environment and not another. Just hearing both parents mention attacks of migraine could influence migraine in a child, they said.

Brush Designed to Aid Cancer Diagnosis

A rotating brush for painless early diagnosis of cancer in the throat has been developed by a Miami, Fla., physician.

Dr. J. Ernest Ayre, of the Miami Cancer Institute, described the new instrument in a recent issue of the *Journal of the American Medical Association*. He said the brush could be used to collect cells for use in laboratory tests of visible growths in the throat. The diagnosis of cancer of the voice organ now depends on surgical removal of cells.

"The need for a screening method for

early cancer of the throat has been emphasized by recent publicity on the importance of ruling out malignancy in heavy smokers suffering from throat irritation," Dr. Ayre said. "It is suggested that a simple technique such as that described here may play a useful role in annual cancer examinations and in examination of patients suffering prolonged hoarseness or throat irritation."

Dr. Ayre said the instrument has a retractable brush and is curved to fit the throat. The bristles sweep rapidly in full circle and collect a rich concentration of cells. The procedure is so rapid that irritation is brief and no anesthetic is needed.

The most common type of malignancy in the throat is cancer of the outer layers of skin, he said. Patients may suffer a chronic hoarseness, cough and bleeding; chronically inflamed, reddened patches on the vocal cords that appear innocent may be early cancer. These persons should be observed closely, and the new instrument will help early diagnosis, Dr. Ayre said.

Award Contest on Proctology or Allied Subjects

The International Academy of Proctology announces its Annual Cash Prize and Certificate of Merit Award Contest for 1954-55. The best unpublished contribution on Proctology or allied subjects will be awarded $100.00 and a Certificate of Merit. Certificates will be awarded also to physicians whose entries are deemed of unusual merit. This competition is open to all physicians in all countries, whether or not affiliated with the International Academy of Proctology. The winning contribution will be selected by a board of impartial judges, and all decisions are final.

—Continued on following page

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The formal award of the First Prize, and presentation of other Certificates, will be made at the Annual Convention Dinner Dance of the International Academy of Proctology March 26, 1955, at The Plaza Hotel, New York, New York.

The International Academy of Proctology reserves the exclusive right to publish all contributions in its official publication, "The American Journal of Proctology." All entries are limited to 5,000 words, must be typewritten in English, and submitted in five copies. All entries must be received no later than the first day of February, 1955. Entries should be addressed to the International Academy of Proctology, 147-41 Sanford Avenue, Flushing 55, N. Y.

Drug Acts Dramatically on Mentally Ill

Three California physicians today reported "dramatic" results in treating mental patients with a new form of the old snakeroot remedy of India, Rauwolfia serpentina.

They said the drug, reserpine, is not a cure-all for mental illness but may prove to be "the most important therapeutic development in the history of psychiatry."

The drug quieted noisy, uncooperative patients, made them more adapted to psychiatric treatment, and largely replaced electroconvulsive therapy. It even seemed to bring about an "amazing" reorganization of patients' personalities, the doctors said. And it gave hospital technicians the hope and opti-

mism so necessary for effective treatment. They were overjoyed at the prospect of becoming rehabilitation therapists instead of custodians.

Drs. Robert H. Noce and David B. Williams, Modesto, and Dr. Walter Rapaport, Sacramento, described their work in a recent issue of *Journal of the American Medical Association.*

They treated 74 mentally ill patients with reserpine. About 30 per cent showed improvements attributable to the drug. Eight patients were discharged and 20 may be given leaves of absence. Reserpine also appeared to be of value to mentally retarded patients, 15 of whom were treated.

They said psychiatrists long have been seeking a safe method or agent that could help the mentally ill toward normalcy. Although "it seems incredible" that a drug could replace other treatment such as electroconvulsive therapy, they said they expect it to "revolutionize and facilitate modern psychiatric treatment."

The Indian plant has been used for centuries to treat mental illness, snake bite, anxiety, insomnia, and various other conditions. Its latest use has been to lower blood pressure in hypertensive patients. Recent claims by an Indian psychiatrist of high rates of recovery in the mentally ill led to this investigation.

For the study, the California men selected only "the so-called backward patients" who had been regarded as "hopeless." They came from wards containing many persons in seclusion and some in restraints or under heavy sedation. Patients were "raucous, hyperactive, combative, sarcastic, resistive, uncooperative," and the ward was "in constant turmoil." Tasks such as feed-

—Continued on following page

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ing, dressing, and bathing patients "were arduous and had a depressing effect on the personnel assigned to these wards."

Since the beginning of reserpine treatment, patients have undergone a change to "cooperative, friendly, cheerful, sociable, relatively quiet persons" who are better adapted to psychiatric treatment and rehabilitation. Most have gained weight and asked for assignment to work details.

"Depressed patients become alert and sociable, while the hyperactive, noisy, assaultive group becomes tranquil," they said. "The use of restraints, seclusion and electroconvulsive therapy has decreased by at least 80 per cent since this study began (in October, 1953)." There has been little difficulty with side-effects.

"Not only the patients have benefited but the ward technicians have adopted hopeful, optimistic attitudes, which are required for any positive and effective approach to therapy. They are overjoyed at the prospect of being converted from custodians to rehabilitation therapists," the doctors said.

"We cannot simply describe the effects of reserpine by confining them to the tranquilizing action of the drug. In addition, we believe that reorganization of the personality is taking place in an amazing, rapid, satisfactory manner.

"It is still too early to say what the ultimate classification of all these patients will be, for it appears that the longer a patient takes reserpine the better the chance for response," they said.

Aid Devised for Victims of Auto Chest Injuries

A technique has been devised to aid breathing by persons whose chests have been crushed by the steering wheel in auto accidents.

Three Chicago physicians reported they have "stabilized" soft chest areas and successfully solved a difficult breathing problem for such patients by the use of weighted traction applied on pins painlessly inserted in the chest.

They said more cars, higher speeds and "fantastic increases" in horsepower means that more serious injuries, and a proportionate increase in chest injuries, can be expected. Such injuries now cause 20 to 25 per cent of automobile accident deaths. One of the most pressing problems in the treatment of "stove-in chest" is stabilization of the chest wall. Drs. Theodore R. Hudson,

Robert T. McElvenny and Jerome R. Head, of Northwestern University Medical School and Wesley Memorial Hospital, said their technique may help solve this problem.

In such chest injuries, they said, the normal movements of the diaphragm and ribs is disrupted when injury-softened chest areas sink in instead of expanding with each breath. This also impairs coughing, which results in flooding of the lungs by secretions which normally would be coughed away. A vicious cycle is set up "as desperately ill patients struggle for increasing amounts of air only to find the situation made worse by their own efforts."

In minor injuries adhesive strapping is satisfactory, but for serious ones existing techniques may not be very effective, they said. They devised a method by which the softened part of the chest is held up and out by traction, with weights suspended from an overhead frame such as that used for some fracture cases.

Pins placed in the softened part of the chest wall are held by metal spreaders, or 'fingers," fastened to weighted cords. The pins are placed while the patient is under a local anesthetic, and the pull of weights is painless. The pins cause no harm to the tissues around them and leave only small pin-point scars.

Five patients have been treated by this method. Two of these patients died of other serious accident injuries, but the technique was successful in aiding their breathing. Two patients recovered completely without after-effects. A fifth patient was successfully treated in this way after the physicians wrote their report in a recent issue of the *Journal of the American Medical Association*.

CLASSIFIED ADVERTISEMENTS

Advertisements under the headings listed are published without charge for those physicians whose names appear in the MEDICAL TIMES mailing list of selected general practitioners. To all others the rate is $3.50 per insertion for 30 words or less; additional words 10c each.

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Equipment	FOR RENT
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WANTED—Assistants

YOUNG MAN for Associate in busy General Practice in Northern New Jersey. Eventual partnership. State qualifications and desired initial salary. Write Medical Times, Box 12A181.

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Dr. Louis T. Kirschenbaum announces the removal of his office to 1901 Grand Concourse, corner of Tremont Avenue, New York 23, New York. Special Interest—Gastro Enterology. LUdlow 3-0970.

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To prepare articles. Interesting spare time work for qualified physician. Send resumé of qualifications.

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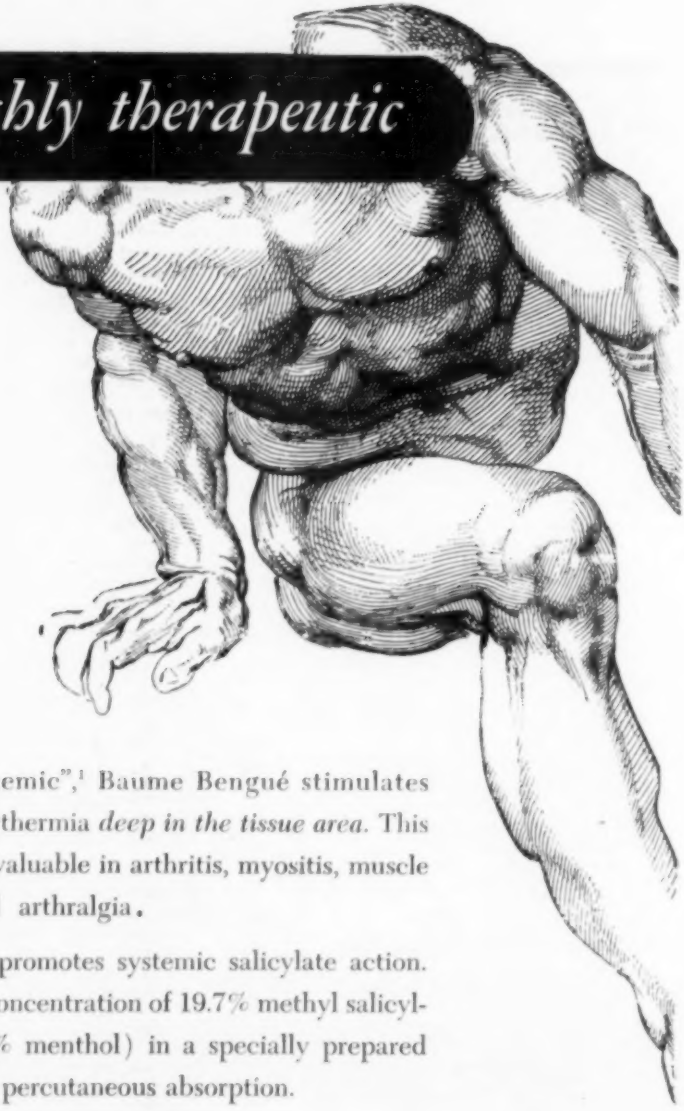
FOR SALE

OFFICE EQUIPMENT: Ob., Gyn. Spec. retiring will sell very reasonably sterilizer, supply cabinet, elec. cauterizer, speculums, etc. and hospital screen, all good condition. For appt. to see (in Bklyn.) please phone: New Canaan (Conn.), 9-1880 (reverse charges).

MEDICAL TIMES, DECEMBER, 1954

Advertisers' Index

thoroughly therapeutic



As a true "hyperkinemic",[1] Baume Bengué stimulates hyperemia and hyperthermia *deep in the tissue area.* This thorough action is invaluable in arthritis, myositis, muscle sprains, bursitis and arthralgia.

Baume Bengué also promotes systemic salicylate action. It provides the high concentration of 19.7% methyl salicylate (as well as 14.4% menthol) in a specially prepared lanolin base to foster percutaneous absorption.

Available in both **regular** *and* **mild** *strengths.*

1. Lange, K., and Weiner, D.: J. Invest. Dermat. 12:263 (May) 1949.

Baume Bengué

ANALGÉSIQUE

Thos. Leeming & Co. Inc. 155 E. 44th St., New York 17, N. Y.

and the older antacid tablets just won't disintegrate!

now TREVIDAL® tablets

break up in less than a minute, assuring rapid yet prolonged relief of hyperacidity.

EACH TREVIDAL TABLET CONTAINS:

Balance of ingredients avoids constipation, diarrhea, or alkalosis	Aluminum hydroxide gel, dried . . . 90 mg. Magnesium trisilicate . . . . . 150 mg. Magnesium carbonate . . . . . 60 mg. Calcium carbonate . . . . . 105 mg.
Unique vegetable mucin supplies protective coat to irritated stomach lining	Regonol† . . . . . 100 mg.
Binder controls and extends antacid activity	Egraine* . . . . . 45 mg.

AVAILABLE IN BOXES OF 100 TABLETS, SPECIALLY STRIPPED FOR EASY CARRYING.

†Cyamopsis tetragonoloba gum
*Trade Marks

Organon INC. • ORANGE, N. J.

'Cogentin'

METHANESULFONATE (BENZTROPINE METHANESULFONATE, MERCK) (TROPINE BENZOHYDRYL ETHER METHANESULFONATE)

A new agent—specifically for the parkinsonian patient

'COGENTIN' is by far the most effective single agent for use in the symptomatic and palliative treatment of all three types of parkinsonism.

"It counteracts spasm and cramps of legs and toes and severe grades of rigidity and contracture, better than any drug currently available for parkinsonism... it allays excitement, tension and restlessness, controls the major form of tremor and brings sleep to insomnic patients in 37 per cent of cases."[1]

It is virtually free from undesirable side effects and "...does not cause drowsiness, mental fogginess or 'dopiness' during the day."[1]

Clinical findings[1] attest the *unique single dose effectiveness of* 'COGENTIN'—a single 1 or 2 milligram dose administered orally before retiring provides effective symptomatic relief in most instances. 'COGENTIN' is available in bottles of 100 and 1000 quarter-scored tablets, each tablet containing 2 mg. of the active ingredient.

SHARP & DOHME

Philadelphia 1, Pa.
DIVISION OF MERCK & CO., INC.

1. Parkinsonism and its Treatment. Philadelphia, J. B. Lippincott Company, 1954, pp 87-88.